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THE AMERICAN BEE JOURNAL

OLDEST BEE PAPER IN AMERICA

Vol. XXIX. CHICAGO, ILL., JANUARY 1, 1892. No. 1.

OLDEST BEE PAPER IN AMERICA THE AMERICAN BEE JOURNAL ESTABLISHED IN 1861

PUBLISHED WEEKLY BY

THOMAS G. NEWMAN & SON

At One Dollar a Year.

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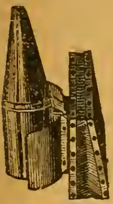

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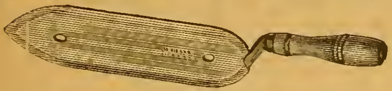

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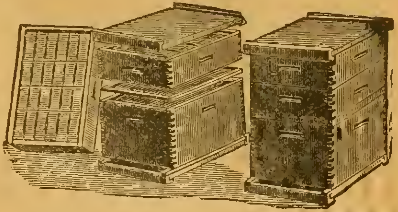

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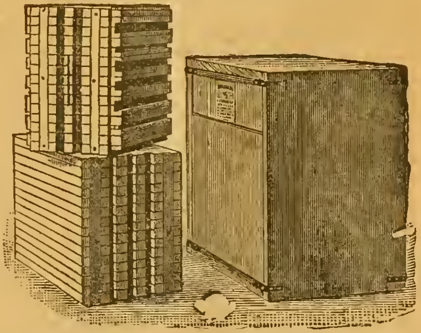

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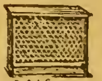

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THOMAS G. NEWMAN,
EDITOR.

Vol. XXIX. Jan. 1, 1892. No. 1.

The Constant drip of water
Wears away the hardest stone;
The constant gnaw of Towser
Masticates the toughest bone;
The constant wooing lover
Carries off the blushing maid;
And the constant advertiser
Is the one that gets the trade.

◆

To All our readers in every clime and country we give the pleasant salutation of the season—

A HAPPY NEW YEAR.

◆

It is 31 Years Ago to-day since the American Bee Journal was launched on the sea of journalism. For 18 years it has been under the management of the present editor. Its character and reputation are fully established, and the history of the past is the guarantee for the future. Suffice it to say that all our time and energy will be devoted to it, as in the past, and we shall endeavor to continue to make it a welcome visitor to thousands of homes all over the country.

Wisconsin bee-keepers should be thinking about their next annual meeting. It will occur next month, and it is none too soon to be making arrangements to attend it. In last week's Wisconsin *Farmer*, Dr. Vance remarks as follows about the programme, and the membership the association ought to have:

> Our Recording Secretary is engaged upon the programme for our next annual meeting, and no doubt he will present one that will draw out the best knowledge and experience. He will probably have a stenographer to take down the discussions, which will be sure to make entertaining reading for all who are interested in bee-culture.
>
> We intend to exert our utmost to bring out every bee-keeper of the State who possibly can attend the meeting. We expect to start a "racket" that will be heard throughout the State, and shall keep it up until the date of the meeting.
>
> Although we have had very good meetings since our organization seven or eight years ago, we have never had more than 100 present, and our membership has not been what it ought to be and must be, if our members will work for the success of our next convention in February.
>
> Talk to your bee-keeping neighbors about the annual meeting, and stir up their interest, and get them to join the association.

◆

Minnesota bee-keepers should attend the State convention at Owatonna on Jan. 20, 1892. All such will have free entertainment during the convention. This is an inducement seldom provided. Go to "the feast" and be refreshed in body and mind.

◆

Mrs. L. Harrison will edit the Bee Department of the Orange Judd *Farmer*. She is, as our readers well know, an able writer, and will make that Department interesting. Mr. Judd is a very able and experienced editor, and the *Farmer* is one of the best weeklies for the farmer's home.

◆

Now is the time to join the National Bee-Keepers' Union. Send to this office for the necessary Blanks.

The Introduction of bumble-bees into New Zealand a few years ago, to secure the fertilization of the red clover, and the remarkable success of this venture are matters of record.

Mr. George M. Thomson, in the New Zealand *Journal of Science*, presents an interesting article on the introduced bumble-bees in New Zealand, giving also a list of the plants and flowers which are visited by these bees.

He makes the interesting statement that, with a few exceptions, he has never heard of these bees visiting the flowers of indigenous plants, but states that they have become so extraordinarily abundant that the question has even arisen in his mind as to whether they would not become as serious a pest to the apiarist, as the rabbits have proved to be to the farmer and cultivator, on account of their absorbing so much of the nectar of the flowers.

He also points out the remarkable fact in connection with the life of the bumble-bee in New Zealand, that in many parts of the colony it is to be seen daily on flowers all the year round.

◆

Essays at conventions are sometimes quite unnecessary, as they were at the late convention at Chicago. At some conventions, we know that they are not only desirable, but very necessary. Dr. Miller, in the last *Gleanings*, in his usual happy vein, writes thus on this subject:

> When Newman, of the AMERICAN BEE JOURNAL, changes his mind, he makes no bones of saying so. Formerly he argued that essays at a convention were essential. Now he says, in the most unreserved manner: "The Northwestern was a convention without essays, and it was a charming success. There was no want of subject-matter to discuss, and no lack of enthusiasm."

It was only the Doctor's extreme modesty which prevented him from quoting the whole item. The rest of it, on page 709, reads thus: "With such a President as Dr. Miller, no essays or programme are ever needed." And that is the key to the situation.

If the President is thoroughly capable of being the programme himself—if he is "full and running over" with subject-matter—if he is so well acquainted with the members as to grasp instantly their individual opinions and views, so as to call out a full discussion, by continually suggesting that Mr. So-and-so "holds a different view and we would like to hear from him on the subject," or words to that effect—then neither programme or essay has any place in such a meeting.

President Miller is so much at home as chairman of a bee-keepers' assembly, that he knows how long to carry on a discussion—in what channel to direct it, when to stop, so as not to weary the members, and has a happy manner of saying so—that he is a whole convention in himself, including essays and programme.

The Doctor's extreme modesty led him into this "exposure," and he must not now complain. So far as the item in *Gleanings* was concerned, it did not represent us correctly without the last sentence—and so it was necessary for us to correct it.

Dr. J. W. Vance wisely remarks thus in the Wisconsin *Farmer*, on this subject:

> The AMERICAN BEE JOURNAL says there were no essays read at the recent meeting of the Northwestern Bee-Keepers' Association, and yet there was no lack of subject-matter for discussion, nor want of enthusiasm. The convention was an eminent success. The editor adds: "With such a President as Dr. Miller, no essays or programme are needed."
>
> I am inclined to think too many or too lengthy essays are not good for our annual meetings. Generally we have had good essays, but the greatest interest of the meeting has centered upon the discussions, which often had to be cut short when at the most interesting point.

Essays should only lead far enough to suggest points for discussion, and in that way they are very good. But if they overpower and crowd out discussion, they are worse than useless.

Importing Bees is a very precarious business. Walter S. Pouder sent by mail a queen to Australia, and the result is detailed in the following interesting reply:

I received your letter on Oct. 16, and the accompanying queen-cage, but I regret to have to state that everything was dead, and had apparently been so for some time.

By the same mail I had two others sent me—one from Mr. Doolittle and one from Mr. Michael, of Ohio. Mr. Doolittle's queen was the sole survivor, the attendants having perished *en route;* while Mr. Michael managed to get through four workers, with a dead queen—38 days would therefore appear to be about the limit of time the bees can stand the confinement. However, it is evident that queens can be sent here from America.

Three of my neighbors have sent orders, and they have each been successful, and I have not heard of any failure except in my own case.

I have had 12 cages altogether sent me, but only 3 live queens—in 2 other cages there were live workers. But even this is better than my first shipment of queens from Italy, where in the 8 boxes sent me, I got nothing but a magnificent collection of fine large, beautifully developed moths.

I have had improved success since, and last month I had 7 out of 8 come through all right. (It seems that our Italian friends had provisioned their cages with comb-honey, and this comb proved to be a breeding pen for the moth.) ANEAS WALKER.

Redland Bay, Australia, Oct. 30, 1891.

◆

The Programme of the annual meeting of the Ontario Bee-Keepers' Association, to be held at London, Ont., on Jan. 5, 6 and 7, 1892, is as follows:

Jan. 5, 2 p.m.—Reading of minutes; Secretary's report; Treasurer's report; other official reports; President's address.

7 p.m.—Report from Mr. Corneil, delegate to North American Bee-Keepers' Association; essay by D. Chalmers on "Hives and Wintering;" essay by R. H. Smith, of Bracebridge, on "Apiarian Exhibits."

Jan. 6, 9 a.m.—Affiliated society's report; foul-brood—Inspector's report;

2 p.m.—Essay by F. A. Gemmell on, "Shall we have a new bee journal or official organ?" election of officers; question drawer, etc.

7 p.m.—Essay by R. H. Myers, on "Rendering Old Comb;" address by J. B. Hall, on "Comb or Extracted-Honey—Which?"

Jan. 7, 9 a.m.—Other essays and unfinished discussions.

Arrangements have been made with the Canadian Pacific and Grand Trunk railroads for reduced rates, as follows:

Persons going to London will ask the railway agent at starting point for a certificate, which he will fill in, certifying that they have purchased a first-class single ticket to London. If there are 50 persons attending the convention, and holding these certificates, the return ticket will be given at one-third single first-class fare: but if there are less than 50 persons holding certificates, the return fare will be two-thirds single fare.

All persons traveling by rail should be sure to get these certificates filled out. It takes the agents a few minutes to fill them in, and they should be asked for 15 minutes before train time. If you require to travel over more than one railway you will require a certificate for each road.

Arrangements have been made with the Grigg House and the City Hotel for the accommodation of persons attending the convention—the former at $1.50 per day, and the latter at 80 cents to $1.00.

◆

Our Thanks are due to the Nebraska *Bee-Keeper* for kind notice. We appreciate the fraternal feeling which prompted the kind words.

◆

Michigan bee-keepers are now in session at Grand Rapids. We hope that it will be a pleasant gathering.

◆

The Nebraska State Bee-Keepers' Association, at its late meeting, by vote, made the Nebraska *Bee-Keeper* its official organ. Now let every bee-keeper in that State help to make it a success. We will furnish it and the AMERICAN BEE JOURNAL one year for $1.35.

◆

Dr. Miller was also prevented from attending the Convention at Albany, by another attack of *La Grippe.*

Queries and Replies.

Best Floor for a Bee-Cellar.

QUERY 799.—My cellar is damp on the bottom, what kind of a floor is best in such a case?—Iowa.

Cement.—J. M. HAMBAUGH.

I do not know.—J. E. POND.

Cement.—EUGENE SECOR.

Cement.—MRS. L. HARRISON.

I would place plenty of lime on the bottom.—J. P. H. BROWN.

Water-proof cement, extending up the walls as far as the dampness extends.—M. MAHIN.

A good gravel-cement is as good as any.—G. L. TINKER.

I think the natural earth floor is the best.—R. L. TAYLOR.

I should have the natural earth. I see no use of any special floor.—A. J. COOK.

I have never tried anything better than brick and cement.—G. W. DEMAREE.

Possibly cement—possibly earth. Find out first whether bees Winter well just as it is.—C. C. MILLER.

Good dry sand. A box of lime is an excellent thing in a bee-cellar—use about one bushel.—H. D. CUTTING.

Put the hives on something one foot from the cellar bottom, and the dampness will do no harm.—G. M. DOOLITTLE.

Nothing is better than a well-cemented floor. Mix the mortar one-half sand and one-half cement.—C. H. DIBBERN.

If you have no floor of any kind—not even stone or cement, lay down boards, and on top put 4 inches of dry sawdust. If cement, then the sawdust on that.—JAMES HEDDON.

A good, thick cement floor is good in all kinds of cellars. I have used it in both wet and dry.—A. B. MASON.

Dampness is not particularly objectionable to the bees. If the bees have not wintered well in the cellar as it is, then use cement or dry sawdust, or both. —THE EDITOR.

Get a Binder, and always have your BEE JOURNALS ready for reference. We will mail you one for 50 cents.

Convention Notices.

☞ The annual meeting of the Colorado State Bee-Keepers' Association will be held in Denver, Jan. 18 and 19, 1892.
H. KNIGHT, Sec., Littleton, Colo.

☞ The Indiana State Bee-Keepers' Association will convene in the agricultural room of the State House, at Indianapolis, Jan. 8, 1892, at 1 p.m. All bee-keepers are invited to attend.
GEO. C. THOMPSON, Sec., Southport, Ind.

☞ The annual meeting of the Ontario Bee-Keepers' Association will be held in the City Hall, London, Ont., Jan. 5, 6 and 7, 1892. A good programme is being prepared. The usual reduced rates have been secured with the Grand Trunk and Canadian Pacific railways. Also special hotel rates at the Grigg House at $1.50 per day, and at the City Hotel from 80 cents to $1.00 per day. All persons interested in bee-keeping are cordially invited to attend.
W. COUSE, Sec., Streetsville, Ont.

☞ A special session of the California Bee-Keepers' Association, in honor of the visit of Prof. A. J. Cook and A. I. Root, will be held in Los Angeles, Calif., at the Chamber of Commerce, Jan. 6 and 7, 1892. The California permanent exhibit in an adjoining room, will no doubt be of interest to all.
C. W. ABBOTT, Prest.
G. W. BRODBECK, Sec.

☞ The Minnesota Bee-Keepers' Association will meet in Owatonna, Minn., on Jan. 20 and 21, 1892. Free entertainment will be provided for those attending by the citizens of Owatonna, and it is expected that the railroads will carry those attending, at reduced rates. The State Horticultural Society hold their annual meeting at the same time.
WM. DANFORTH, Sec., Red Wing, Minn.

☞ The Ohio State Bee-Keepers' Association will hold its next annual meeting at the West-End Turner Hall, on Freeman Avenue, Cincinnati, O., from Feb. 10 to 12 inclusive, 1892, beginning at 10 a.m. Wednesday, Feb. 10. All local associations should endeavor to meet with us or send their delegates. Those intending to be present, will please send their names to the Secretary, at their earliest convenience. The President will endeavor to get reduced railroad rates, and also reduced rates at hotels. The programme will soon be issued, and all particulars published.
C. F. MUTH, Pres., Cincinnati, O.
S. R. MORRIS, Sec., Bloomingburg, O.

Winter Problem in bee-keeping; by G. R. Pierce, of Iowa, who has had 25 years' experience in bee-keeping, and for the past 5 years has devoted all his time and energies to the pursuit. Price, 50 cents. For sale at this office.

☞ The sewing machine I got of you still gives excellent satisfaction—W. J PATTERSON, Sullivan, Ills.

Topics of Interest.

Eastern Iowa Convention.

FRANK COVERDALE.

The bee-keepers of Eastern Iowa convened at DeWitt, on Dec. 2, with Vice-President H. S. Bowman in the chair. After roll call and routine business the convention adjourned until 1 p.m., when the regular programme was begun, the first subject for discussion being "Bees and the Farm."

H. S. Bowman said—I consider it profitable to keep bees in connection with farming.

W. S. Rice—I think that bee-keeping alone is the most profitable, for the busy time for the farm and the bees come at the same time.

Frank Coverdale—For the past two years it would be rather a light income, if one bee-yard should be depended upon to meet all expenses.

H. S. Bowman—I would not tolerate a pursuit that was not able to stand alone.

F. Coverdale—While I consider bee-keeping as an important branch of agriculture, it has, when in the hands of the specialist, been abundantly able to stand alone.

Spring Dwindling.

L. J. Pierce—Keeping them in the cellar until late in the Spring will help very much.

D. Benton—My bees that are wintered out-doors, in chaff hives, do not dwindle. I prefer cellar wintering, and would leave them in until late in the Spring.

H. S. Bowman—The life of the worker bee, when kept confined, is about six months, and much of the Spring dwindling is caused by the natural decadence of the colony.

H. Stewart—Bees should not be allowed a flight, when wintered in the cellar, until settled warm weather comes.

Brood-Frames.

H. Stewart was of the opinion that quite shallow frames were as good as any for brood-rearing—even Mr. Heddon's divisible hive.

H. S. Bowman—When Father Langstroth invented the movable-frame hive, he hit the happy medium, for with all attempts to improve it, no one has been successful.

Wm. Kimble—I want a frame 2 inches deeper.

H. Stewart—During the past Summer I have visited over 100 bee-keepers, and where these deeper frames were used, the apiarist was not as successful in the production of comb-honey.

Prevention of Swarming.

Mr. Hines, of Anamosa, had on exhibit a hive which he invented for the purpose. A twin bee hive. He manipulated the hive and frames, so as to keep down the swarming fever.

F. Coverdale—I let the bees swarm during the past Summer, and moved the old hive to one side, and about 14 inches forward. I bored a one-inch hole in the center of the old hive, and about ½ inch from the bottom-board. I placed a cone in the auger hole, then fastened up the entrance, and put the swarm on the old stand. All were elevated nearly as fast as the young bees became old enough to fly. When nearly all were hatched, part of the entrance was removed, the cone taken out, and the hole fastened up.

EVENING SESSION.

The evening session was very enjoyable. As those who were on the programme for the evening were not there, the time was occupied by discussions.

MORNING SESSION—DEC. 3.

There was a heavy rain during the whole day, but the attendance was good.

Question Box.

Will it pay to melt up combs, or should they be saved for hiving swarms?

T. Hines—When such combs were used for swarms, they did not do as well as where nothing but starters were given them.

Mr. Bowman—I would use the surplus combs in new hives, and in building up worker-comb in old hives.

Mr. Kuebler—I agree with Mr. Bowman in a general way.

Mr. Bowman—I like 2 or 3 empty combs to hive swarms on.

A Member—Whenever the bees get their work ahead of the queen, look out for drone-comb. These 2 or 3 empty combs will do it.

D. Benton—Whenever my bees are hived on a full set of combs, or full sheets of foundation, much of the honey will be stored in the brood-chamber, crowding out the brood, making the colonies weaker to gather the Fall crop.

Mr. Hines offered several strong arguments to prove that bees cannot control the secretion of wax, though it was opposed by many.

Is Careful Breeding Necessary?

H. S. Bowman—Careful breeding is necessary in order to secure the best results.

Mr. Kuebler—I want well-bred Italians, for they protect themselves better, and gather more honey.

G. Jacobs—My 40 colonies are hybrids, and I like them better than pure Italians.

H. Stewart—Go where you will, and you will find advocates of scrub cattle and scrub horses, but he who breeds for the higher points, reaps his reward.

A premium was given for a machine that would put together one-piece sections the best and quickest. C. Kuebler won the first, and W. S. Rice the second.

Adjourned until 1 p.m.

AFTERNOON SESSION.

The meeting was called to order by President Kimble. A letter was read from the State Secretary, asking the co-operation of the Eastern Iowa bee-keepers in securing an appropriation for an exhibit at the World's Fair.

Three delegates were appointed to attend the next annual meeting of the State association. They were H. S. Bowman, Frank Coverdale, and Wm. Kimble.

The election of officers then took place, and resulted as follows:

President—H. S. Bowman, Maquoketa, Iowa.

Vice-President—Henry Stewart, Prophetstown, Ills.

Secretary—Frank Coverdale, Welton, Iowa.

Treasurer—L. J. Pierce, DeWitt, Iowa.

Maquoketa was chosen as the place to hold the next meeting at the call of the President. FRANK COVERDALE, *Sec.*

Welton, Iowa.

Automatic Hiver, Bee-Escape, Etc.

MRS. L. HARRISON.

As I was returning from the Chicago Bee Convention I saw a tall man, clothed in fur, enter the car. I took him to be B. Taylor, of Forestville, Minn., but I was not sure, as there was so little of him to be seen on account of the fur. But the temptation of having an intelligent bee-keeper to talk with overcome my timidity, and leaving my seat I went to where he sat and found that I had been correct in my surmises.

I stood in the aisle talking for awhile, when I saw by the eye of the conductor that I was obstructing the passageway, as I am somewhat bulky, and anticipated him by leaving. We soon succeeded in finding a seat together, and the time flew faster than we passed the telegraph poles, as we talked bees, hives, etc., "for when pleasure and profit can be combined, time runs swift and the heart is glad." Mr. Taylor said that he had been a bee-keeper for forty-five years, that his enthusiasm was yearly on the increase, and that if he did not make anything from them for ten years he would keep on.

AUTOMATIC HIVER.

Mr. Taylor's countenance beamed with delight as he reached for a small hand-satchel and opened it. I imagined that he carried some pets in there, and was not disappointed. He thought that it was the best part of a convention to have hives and fixtures brought there so that a comparison could be made, and their good and bad points discussed.

He handed me a photograph, cabinet size, and I soon saw that it did not contain his pleasant shadow, but that of a hive with an automatic hiver attachment. I will not try to describe this hiver, as I may not be able to describe it intelligibly to my readers, but will try to explain the principle of it:

All self-hivers that I ever heard about before, conducted the bees by a passageway into a hive placed by the side of a colony, but Mr. Taylor said that as the queen and bees fly upward, his passageway is constructed so that the bees follow this inclination and go upward. This passageway is of the width of the hive, and as tall again. On the top of this towering way a light box, with two sides of wire gauze, is fastened with Van Deusen clasps. There is a strong draught of air out of the hive while the bees are swarming, and this is utilized to close a door in the passageway, which shuts the bees in, and they go up into the hiver with the queen. Those that flew out before the door closed would gather on the outside of the wire gauze.

What a bonanza this hiver would be for the women—put on a hiver, knead the bread, mind the baby, and cook the good man's dinner, without fear of the bees going to the woods. No need of hurry to hive them, either. They can be put into the cellar for forty-eight hours, and when hived there will be no danger of their turning up their nose and escaping to the woods—emigrating West.

If this hiver never comes into general use, the inventor has had a deal of comfort and satisfaction in manufacturing it in his shop, where he has many tools and fine machinery.

BEE-ESCAPES.

I was not at all surprised when Mr. Taylor put his hand into the satchel and brought out a bee-escape—the British call them "super-cleaners." My partner in the stings and sweets in the honey business, says that he does not see how we can keep house without them. though we have had no opportunity of testing their good qualities since the crop was harvested.

I wish my readers could see this one; it is a tin tunnel with an inclined brass walk through the middle, and when the bee gets to the end of it she jumps off.

It is like the spring-board that boys have to dive into the water. When the bee wishes to return the end of the spring-board is in her way, and prevents her doing so. I have quite a museum of bee-escapes, but I am suffering for more.

I have some that stand up and some that lie down, and some in the shape of a star. When I have an opportunity of trying them, I will tell you which pleases me best.

QUEEN-CELL PROTECTORS.

"What is this, mamma?" said an eight-year-old, as she exhibited her forefinger covered with a spiral cone made of wire.

"Oh, that's mamma's! You must not touch it. " Mr. Taylor gave it to me. It is a queen-cell protector. The cell is put into it, and the bee cannot bite into the sides of it to destroy the queen; and when she is old enough she comes out of the little hole into the hive. That little handle of wire can keep it from falling down between the combs, or can be stuck into one."—*Prairie Farmer*.

Peoria, Ills.

Indiana State Convention.

E. H. COLLINS.

The Indiana State Bee-Keepers' Association has now been in active existence more than a decade. It was at first organized during the excitement over the introduction of Italian bees. When this was well accomplished, the bee-keepers continued the meetings for the educational and social advantages they afforded. It is always a happy experience for those directly interested in any occupation to meet and talk.

The attendance and interest at these meetings has been increased for the last year or two. The programme is now nearly completed for the convention to be held in the Agricultural Room at the State House, at Indianapolis, on Jan. 8. 1892, at 1 p.m. So far as arranged, it is as follows:

1. Business.
2. Voluntary reports of experience in the apiary during the past Summer.
3. A year among the bees. (*a.*) Spring, Ora Knowlton, New Brunswick. (*b.*) Summer, Joseph Myers, Gray. (*c.*) Fall, G. P. Wilson, Toll Gate. (*d.*) Winter, David Scott, Bloomsdale.
4. The anatomy of the honey-bee, illustrated, E. H. Collins.
5. Getting bees out of the sections, illustrated, J. T. Dinsmore.
6. Plans and suggestions for Summer meetings of local societies, Mrs. Dr. Herr, Westfield.
7. Winter protection, Chas. F. Muth, Cincinnati, O.
8. A talk to beginners, Geo. C. Thompson, Southport.
9. Hindrance to bee-culture, Walter S. Pouder, Indianapolis.
10. Should the State Board furnish a stenographer for the general State societies? Discussion.

There will be on exhibition many conveniences and interesting specimens to instruct the bee-keeper.

E. H. COLLINS, *Pres.*

Preparing Bees for Winter.

J. E. POND.

My experience covers over twenty years of time, and has been drawn from a constant series of experiments, the result being that I do not fear cold of itself, and that if the bees can be kept dry they will safely withstand any reasonable degree of Winter weather. The sole secret, in my opinion, being, ample stores and freedom from moisture. I have always wintered bees on summer-stands, in all sorts of hives, single and doubled-walled, chaff, etc., and have not met, during the whole time I have had bees, with 1 per cent of loss, and, in fact, the only losses I have ever met with were my own fault, and owing to the want of sufficient stores to carry them through.

My experience teaches me that a large entrance is a necessity; that ventilation should be downward, and when a hive is so prepared that little, if any, moisture is retained, the bees are perfectly safe as far as cold is concerned.

My Winter preparation consists simply in giving from one to two inches of space between top of frames and the cover or mat; that is, I use only a piece of burlap, or old carpet, to confine the bees, at the top leaving not less than one inch of space between the mat and top of frames. On top of the mat I pack loosely five or six inches of forest leaves, or their equivalent.

This method of preparation, with ample stores, and a large entrance, carries my bees through safely all the time. If I am asked why, I should say the excess of moisture is carried off at the top of the hive; the ventilation is downward through the entrance, and this excess of moisture cannot be collected. This is not theory; it is practice. It is not an improved experiment, but a matter that has been tested over and over again, with like results in every case.

I prefer double-walled hives, as they do give protection to a large extent, but I Winter bees in single-walled hives, with the temperature 15° to 20° below zero.

Complexity has always been at war with simplicity, but when all learn that simplicity is king, then they will begin to accomplish great results.—*American Bee-Keeper.*

North Attleboro, Mass.

Some Seasonable Hints.

C. H. DIBBERN.

The successful bee-keeper can find plenty of work to do now, that will greatly lessen the work when the busy time comes again.

Now is a good time to work in the shop, by the side of a warm stove, and overhaul the empty hives and cases, and put all in good repair for another season.

It is a capital time now to make up the sections for next season, put in the foundation, and store them away where mice and rats cannot get at them. They will be very handy next June.

If some of the supers have a good deal of burr-comb sticking to them, see if the bee-spaces are not faulty.

If your hives or fixtures need painting, now is as good a time as any to do it.

If you will hunt up work now, it will not hunt you so persistently next Spring.

That all sections filled with honey-dew had better be put in cases by themselves, and used to stimulate the bees next Spring.

Many bees will be lost the coming Winter by the "starvation plan," especially by farmers, and those who allow the bees to "shift for themselves."

Should the coming Winter prove a severe one, those who have placed their affections in the thin shells without packing, will be among the chief mourners next April.

The honey-dew was, after all, a "blessing in disguise," for without it we would have had to feed in July, or lose our bees. The trouble was, that there was little else to be had. It kept up brood-rearing, and the young bees gathered the Winter stores.—*Plowman.*

Milan, Ills.

North American Bee-Keepers' Association.

W. Z. HUTCHINSON.

A few of the more enterprising members arrrived at Albany, N. Y., Dec. 8, 1891, and the evening was passed in an informal chat, the renewing of old friendships, and the forming of new ones. The first formal meeting was held on the morning of Dec. 10, when President Elwood addressed the Convention as follows:

President's Address.

The labors and experiences of another season are ended, and its lessons largely learned. A bee-keeper of my acquaintance devotes this part of the year to a careful comparison of the main points in the season's experience with those of previous years. The facts are then still fresh in mind, and the conclusions are useful. In proof that he is eminently successful in his business, I might mention his name but for fear of his modest presence with us. So we, in Convention assembled, may compare our varied experiences during the season just closed, and, on doubtful points, gather wisdom more rapidly and cheaply than to work it out in our own bee-yards.

With so large a crop in one part of our country that the markets are surfeited, while much of the remaining portion is begging for choice comb-honey, it may be that we shall learn a useful lesson on the distribution of our products. What are the hindrances to a better distribution of honey?

1. Our method of marketing, which hurries it off to market without waiting to learn where it is needed.

2. Freight rates are too high, and what is worse, honey is handled carelessly by railroad men, making it difficult to reach distant markets.

After signing a release and loading and unloading his own honey, the bee-keeper is charged double the rates he ought to pay by these servants of the people.

A recent ruling, which compelled the shipper to cover the glass, that has been used for a score of years, chiefly to secure more careful handling, is a fair sample of the treatment we receive.

This Association should vigorously protest against this unwarranted interference with our rights, and a committee should be appointed to work diligently until reduced rates and better treatment are secured. We have had such a committee in our State Association, but we need a united effort throughout the country.

3. Lack of uniformity of packages and grading is a barrier to a proper distribution. What is accepted in one market is not in another. Put up the honey to meet the demands of the market to which it is sent, has been the advice. This sounds too much like the cry of the sensational or Sunday newspaper man, who says "we publish what the people demand," and the paper gets down lower and lower all the time. The people are not always the best judges of their needs, and often have to be educated.

Starting with the two-pound box, glassed, we have successfully met and catered to the demand for one-pound sections, glassed and unglassed, full weights and light weights, paper cartons and pasteboard boxes, wood and mica sides, thick (2-inch) boxes and thin boxes, 1⅞, 1¾ down to 1½-inch, square boxes and tall boxes, until there is the greatest diversity in packages, and it is difficult for a dealer to duplicate an order for any quality, unless it is from the same consignment. The producer has wasted his substance in continual changes, and, like the sensational editor, has been but a puppet to a senseless demand.

We should adopt a standard, and if glassed honey looks better, carries better and keeps better, why not gradually enlarge the production of this kind, and, if possible, educate the consumer to buy honey in the standard box, or "section."

I have this year had calls for glassed honey from the West, and yearly the demand for this kind is increasing in the East.

In the reduction of duty on sugar, no bee-keeper, to my knowledge, was consulted, and fearing that, in the contemplated treaty between this country and Spain we might again be overlooked, I consider it my duty as an elected representative of the bee-keeping interests of this country, to address a protest early in the year to the State Department against the free admission of honey from Cuba. A copy of the letter is here appended:

STARKVILLE, May 14, 1891.
Hon. James G. Blaine, State Department,
Washington, D. C.

MR. SECRETARY:—Information reaches me that this country and Spain will probably agree upon a treaty of reciprocity. With such probabilities ahead, I desire to be informed, as representative of the bee-keeping industry, whether honey is upon the free list. If so, I wish at this early day to enter an emphatic protest against any change in the tariff.

The contemplated removal of the duty on honey in the Spanish American treaty a few years since was met by a most emphatic protest from the 300,000 bee-keepers of the United States of America. Much better reason have they now for protesting, since the great reduction in the price of cane-sugar, the chief competitor of liquid or strained honey.

The removal of the duty on foreign sugar was followed by a bounty to our domestic sugar producers, even to the producers of maple-sugar, which is chiefly an article of luxury, and not a competitor of cane-sugar in the manufactures as is "strained" honey. Our legislators, who so kindly remembered the sugar growers, entirely forget the honey producers, whose product is but sugar under another name. In the manufacture of certain products honey is superior to sugar, although not so much superior but that we shall have to lower present prices in many cases to avoid the substitution of the inferior and cheaper article.

Now, to permit Cuban honey to enter free, and still further reduce prices, would be an act of injustice that could hardly be forgiven. In fact, it is questionable whether our industry could survive, unless it should be that limited branch of it devoted to the production of comb and liquid honey for table use. Cuba is probably the finest honey producing country in the world, and capable of producing on immense amount of honey. So superior is it in this respect that several of our most intelligent bee-keepers have left all of the advantages of their native land to engage in the production of honey there.

Our industry is still in its infancy, and while we already produce many million pounds of honey, it is capable of an expansion so great as to wholly eclipse the present production of sugar from the sugar-cane. Four contiguous counties have produced in one season over four million pounds of honey, and this represents but a fractional part of what might have been gathered.

Knowing well the genuine interest you take in the welfare of the people of your country, I am confident that you will give this subject the attention its importance deserves. Should there be any points on which you desire additional information, command me at your pleasure. Yours, etc., P. H. ELWOOD, President of the North American Bee-Keepers' Association; also President of the United States Honey Producers' Exchange, and President of the New York State Bee-Keepers' Association.

The letter I received in reply is not at hand, but it stated that the subject should have the attention its importance seemed to demand. I am glad to say that the treaty makes no change in the present duty.

As the hand of our legislators has once been laid heavily upon us, and may be again, I suggest that a standing "watch-dog" committee on legislation be appointed. Also, if you think best, this committee may be authorized to draft a bill regulating the use of arsenical poisons on fruits and vegetables, by spraying and other processes. That bill should be in suitable form for submission to the several State Legislatures.

The Committee on Medals have completed their labors, suitable dies have been obtained, and medals stamped for distribution to affiliated societies, as called for in the Constitution. Much credit is due to Mr. Thomas G. Newman, who worked on this committee with his usual vigor and ability. A few extra medals to be awarded for meritorious inventions, discoveries and experiments, would help our society and pursuit.

The original experiments made by Professor Cook, on Fertilization by the Honey-Bee, read at Washington, is worthy of a medal, but probably our awards should be conditioned on having the report first made to this Society. I hope Professor Cook has continued his experiments so as to include buckwheat, as farmers have but little idea of the great benefit they derive from the honey-bee in the fertilization of this grain.

A medal should be offered for the best essay for general distribution on "The use of Honey in the Arts and Manufactures." When we know that a single firm of bakers within a few months bought $13,000 worth of honey to use in their business, we are led to believe that its use might be largely extended.

Manufacturers have learned that certain chemical processes take place with honey that do not with sugar.

In medicine honey might often be substituted for syrup, to the benefit of the patient, as it is more easily digested, and in lung and throat diseases it is a valuable medicine.

Formerly it was the custom of our secretaries to prepare a copy of our proceedings for the press, or a copy from which reporters could make extracts. I advise that we return to this custom. Reporters are not familiar with bee-keeping, and while we sometimes have excellent reports, usually those published in our dailies are not creditable to either bee-men or to the papers that publish them. I therefore ask that our Secretary furnish a report for the press.

We are pleased to have with us in this meeting many representative bee-keepers who have not met with us heretofore. Mr. Frank Benton, who has nearly compassed the world in search of new varieties of bees, and to whom bee-keepers are under lasting obligations, expected to be here, but is kept away by sickness.

One whom we have been accustomed to meet at our State Conventions is not here—Mr. G. H. Ashby—whom we held in high esteem for his superior qualities of head and heart, will be sadly missed on the floor of this Convention.

P. H. ELWOOD.

A vote of thanks was given to the President for his able address.

A recess was then taken, when the following members paid the annual dues:

J. S. Barb. Oakfield. Ohio.
B. Wells, Fostoria, Ohio.
E. Calvert, Valley Junction, Iowa.
F. A. Hayes, Farragut, Pa.
P. H. Elwood, Starkville, N. Y.
J. M. Hambaugh, Spring, Ill.
O. L. Hershiser, 24 W. Seneca street, Buffalo, N. Y.
W. E. Clark, Oriskany. N. Y.
W. D. Wright, Altamont. N. Y.
R. F. Holtermann, Brantford, Ontario.
V. V. Blackmer, Orwell, Vt.
Solomon Vrooman, Hartford, N. Y.
S. Corneil, Lindsay, Ontario,
R. McKnight, Owen Sound, Ontario.
H. L. Leonard, Brandon, Vt.
J. E. Crane, Middlebury, Vt.
R. H. Holmes, Shoreham, Vt.
Ira Barber, DeKalb Junction, N. Y.
J. E. Hetherington, Cherry Valley, N.Y.

W. L. Coggshall, West Groton, N. Y.
Miles Morton, Groton, N. Y.
A. A. Brimmer, Hoosick, N. Y.
J. F. Wood, North Prescott, Mass.
E. B. Smith, Millford, Pa.
A. W. Smith, Parksville, N. Y.
E. U. Parshall, Cooperstown, N. Y.
J. Van Deusen, Sprout Brook, N. Y.
N. D. West, Middleburg, N. Y.
J. O. Munson, East Lansing, N. Y.
A. P. Slater, Preston, N. Y.
C. A. Hallegas, DeKalb Junction, N. Y.
W. G. Larrabee, Larrabee's Point, Vt.
Edgar Briggs, Poughkeepsie, N. Y.
Ambrose Pealer, Danube, N. Y.
Thomas Pierce, Gansevoort, N. Y.
D. E. Floyd, Nelliston, N. Y.
C. M. Woolser, Richfield Springs, N.Y.
J. H. M. Cook, 78 Barclay st., N. Y.
F. A. Lockhart, Lake George, N. Y.
A. Armbrust, Schenectady, N. Y.
F. M. Hawkins, Poultney, Vt.
A. H. Wood, Hanover, N. H.
L. H. Bartram, Sharon, Conn.
A. W. Manderville, 285 High street, Newark, N. J.
David Stoddard, Ballston Center, N.Y.
W. W. Cary, Colerain, Mass.
Levi Defreest, Troy, N. Y.
W. Z. Hutchinson, Flint, Mich.
E. A. Stratton, Horseheads, N. Y.
Claude Smith, Norwich, N. Y.
C. D. Robinson, West Groton, N. Y.
D. H. Coggshall, West Groton, N. Y.
S. F. Pratt, Marlborough, Mass.
I. J. Stringham, 92 Barclay st., N. Y.
G. A. Burhams, Cooksburg, N. Y.
Norwood Burhams, Cooksburg, N. Y.
Charles Stewart, Sammonsville, N. Y.
R. L. Taylor, Lapeer, Mich.
F. Allen, West Berne, N. Y.
Julius Hoffman, Canajoharie, N. Y.
W. H. Mallory, Worcester, N. Y.
Eugene Converse, Coventry, N. Y.
G. M. Doolittle, Borodino, N. Y.
Arthur Barnes, Canajoharie, N. Y.
George E. Davis, Shelburne Falls, Mass.
V. N. Forbes, West Haven, Vt.
W. S, Ward, Fuller's Station, N. Y.
E. D. Kniffer, Middleburg, N. Y.
J. I. Parent, Birchton, N. Y.
F. H. Cyrenius, Oswego, N. Y.
J. Vandervort, Laceyville, Pa.
M. E. Hastings, New York Mills, N.Y.
H. D. Spencer, Coventryville, N. Y.
J. W. Porter, Charlottesville, Va.
G. W. Alexander, Esperance, N. Y.
John L. Watkins, Sandy Hill, N. Y.
Frank Benton, Washington, D. C.
Henry Segelken, 28 and 30 W. Broadway, N. Y.
Thurber, Whyland & Co., 116 Reade street, New York.
John S. Scudder, Amsterdam, N. Y.
Charles Israel, 70 Hudson street, N.Y.

LIFE MEMBERS PRESENT.

E. R. Root, Medina, Ohio.
Charles Dadant, Hamilton, Ill.
Eugene Secor, Forest City, Iowa.
G. H. Knickerbocker, Pine Plains, N.Y.

LADY MEMBERS.

Miss M. A. Douglas, Shoreham, Vt.
Mrs. J. Vandervort, Laceyville, Pa.
Mrs. H. L. Leonard, Brandon, Vt.
Mrs. W. J. Haviland, Glens Falls, N.Y.
Mrs. Thomas Pierce, Gansevoort, N.Y.
Mrs. Frank Benton, Washington, D. C.
Miss M. J. LaGrange, Guilderland, N.Y.
Miss Cynthia Payne, Victor, N. Y.

Upon the Convention being called to order, it was voted that Thomas G. Newman & Son be paid $20.00 towards publishing, in pamphlet form, the report of this Convention, as usual.

The Committee on Incorporation reported as follows:

Report of Committee on Incorporation.

Your committee to which was referred the matter of incorporating the North American Bee-Keepers' Association, beg to report that they have attended to the matter, and the certificate of incorporation is in the hands of the Secretary, and the fees for the same have been paid by the Association. The life members in the United States were by vote designated as the incorporators.

THOS. G. NEWMAN, *Chairman.*

The report of the committee was approved, and the committee was discharged.

R. McKnight—Is this Society incorporated under a State law, or does it cover the whole country?

E. R. Root—It is incorporated under a State law, but its influence is National.

R. McKnight—Is not incorporating it under a State law making a local society of what was a National body?

J. E. Hetherington—It is necessary to incorporate under a State law. That is the only way in which it *can* be incorporated; but such incorporation does not prevent it from being National in character.

The Manager of the National Bee-Keepers' Union reported as follows:

The Bee-Keepers' Union.

As General Manager of the National Bee-Keepers' Union, which is now under the fostering care of the North American Bee-Keepers' Association, I would report that it is still laboring for the welfare of Bee-Keepers, and defending them in their rights and privileges as far as its limited means will allow. With one exception, it has been successful in all the suits it has undertaken, and by its influence it has prevented litigation in hundreds of cases. Its annual Report will be published in a few days. A *word of encouragement* and *endorsement* from your body will help it to secure even greater success than heretofore.

Fraternally Yours,
THOS. G. NEWMAN, *General Manager.*

This Report was approved and endorsed by vote.

The following committees were then announced:

ON EXHIBITS.—Thomas Pierce, G. M. Doolittle, R. Holmes.

ON RESOLUTIONS.—R. McKnight, G. H. Knickerbocker, E. R. Root.

ON QUESTION BOX.—J. E. Crane, W. L. Coggshall, S. Corneil.

ON LEGISLATION.—J. M. Hambaugh, R. L. Taylor, Eugene Secor.

ON FINANCE.—R. F. Holtermann, N. D. West, A. Armbrust.

The Committee on Medals reported as follows:

Report of the Committee on Medals.

Your committee appointed to procure medals for distribution to the affiliated societies, beg to report that they have had dies made, which will answer for all future orders for medals, and have procured silver-plated medals, and leather cases for the same, and delivered them to the Secretary. The expense of dies was $50, of the medals, etc., $27.50, all of which has been paid from the treasury.

THOS. G. NEWMAN, *Chairman.*

The report was approved, and the committee discharged.

Attention was called to the fact that the Ontario Bee-Keepers' Association was entitled to two medals, the medals not having been made at the time they were awarded. It was voted that, now the medals were made, they be forwarded to the Ontario Bee-Keepers' Society.

The Convention then listened to an address by G. M. Doolittle, upon the subject of

Bees, Location, and The Apiarist.

He remarked that the queen is the all-important factor. She lays the eggs. The more eggs the more bees. The time from the laying of the egg to the hatching of the bee is 21 days. From the hatching of the bee until it goes into the field to labor is 16 days. From the day the egg is laid until the bee is a field-worker is 37 days. Hence it will be seen that the time when the eggs are laid is very important.

Next comes the location. Most of us are bound by ties to a certain locality. The man who is free should carefully select his location, but the man who makes a success in a poor field is entitled to more credit than the one in a good location. A thorough examination of a location is of great importance. It is only in exceptional locations that we have a continual honey-flow. With only one source of supply, extra care and management are needed to have the bees in readiness when it comes.

The bee-keeper must be a man of push. Most day laborers glance at the sun occasionally to see when it goes down. Who ever heard of a bee-keeper doing this, unless to see if he could finish some job of work? To the bee-keeper his work is fun. The man who spends his time in the corner-grocery, or in playing checkers, back-gammon, or other games, will never be a successful bee-keeper.

I have been very successful in spreading the brood in the Spring, and I know that wonderful results may be obtained thereby, but *protection* and *judgment* are needed. By spreading the brood, I mean placing the outside combs in the center of the brood-nest, where they will soon be filled with eggs.

The greatest point in bee-keeping is to have the bees *at the right time.* There is no sense at all in stimulating breeding when the harvest is over and gone.

The following letter to President Elwood was read:

WASHINGTON, D. C., Dec. 8, 1891.

DEAR SIR:—I very much regret that a serious illness makes it unsafe for me to think of going to Albany. My authorization as a delegate to represent the Department of Agriculture in the proceedings of the Association was made out and signed by the Secretary of Agriculture last week, and I had all other arrangements made to arrive in Albany to-day. I am, of course, greatly disappointed, and it certainly is vexatious, after having been able to work all the year, to be sick at this particular juncture. However, there may be some Providence in the matter.

My essay was not finished when I was taken ill. I am sorry for this, as well as that I cannot be there to confer in reference to the discussion set down for 3:30 p.m. Thursday, which, by the way, I am quite surprised to see in the programme, But it is a good idea, since union on the part of the Association in regard to the work to be undertaken will surely result in benefit.

As the appropriation for this purpose is not large, and expenditures had been authorized at Lansing previous to my appointment, experimental work has not been undertaken here, this season especially, as the weather was well advanced when I came here. But besides correspondence, planning work, etc., my time had been utilized in making transactions and some general work for the division. The views of the Association in regard to the work to be undertaken, will doubtless be received with great consideration. FRANK BENTON.

After recess, the Secretary read the following essay by Rev. W. F. Clarke, on

Prevention of Swarming.

There are many desiderata in bee-keeping yet. If we could get rid of the stings, many of us would be entirely happy in our apiaries. If we could be sure of a good season every year; if we could keep a lot of silly bee-keepers from spoiling the market by underselling, putting inferior goods on it, and other foolish practices; if we could prevent adulteration; if we could bury the Wiley lie a thousand fathoms deep; and if we could divorce the bee-periodicals from the supply business, there would be a kind of bee-keepers' millenium. But it would be incomplete without a method of preventing swarming. That is the chief desideratum of all. The anxiety of watching; the suspense of not knowing at what moment any number out of 100 colonies will rush frantically into mid-air; the disorder and suspension of work occasioned by the "swarming fever" when it breaks out in an apiary; these, and other considerations, make it very desirable to prevent swarming, if it can be done without an injurious revolution in the habits of bees.

What causes swarming? Is it a normal or abnormal thing? I used to think it was normal; now I doubt it. Have we any well authenticated cases of bees swarming when their home was in a roomy tree-trunk, a large cavity, in a rock, or a spacious attic? Is this one of the bad habits they have acquired under man's manipulation? Have we crowded them into small receptacles where they cannot increase and multiply *ad libitum*, or have not elbow-room to work freely? Is it like the emigration of human beings from the over-populous countries of Europe? Some point to the enthusiasm with which bees start a new colony, as proof that swarming is normal. You might as well cite the energy and enthusiasm of settlers in a new country. But they left the old home with pain and tears. How do we know that our bees do not have a weeping time before they become convinced that there is nothing for it but to go forth and seek a new home. The queen, we know, vacates her throne reluctantly, and with regret. Emigrants often forsake their native land because of oppressive circumstances that leave them no option but to depart. Mayhap bees leave the old hive for a similar reason.

My home apiary is an out-apiary, being a mile away from where I live, in the suburbs of the city. During the past season I have experimented much in regard to the prevention of swarming. Having about a hundred frames of empty comb on hand, I took 6 of my strongest colonies and gave them plenty of space to multiply brood and store honey. Only one of the 6 showed any disposition to swarm, and that one did it under circumstances that made it suggestive, if not conclusive, as to the cause of swarming.

I transferred a colony from an ordinary 8-frame Langstroth hive into a Root chaff-hive. The queen and one frame full of brood were put in the lower story, nine frames of empty comb also being placed in the lower story. Then a sheet of queen-excluding zinc was laid on. Into the upper story were put the remaining seven frames of honey and brood, with seven frames of empty comb.

The bees worked like Trojans until towards the close of the honey harvest. One afternoon, about three o'clock, they started to swarm. By an active use of the sprinkler they were stopped in their mad career. So soon as they had settled down I opened the hive and found every frame in the upper story full of sealed honey. Not a square inch of storage room was left. I took out five frames of honey, and replaced them with five empty frames, having inch starters. "Now," I said to myself, "I shall find out whether those bees swarmed for want of more room."

I could hardly sleep that night for interest in the outcome of the experiment. I longed for the daylight that I might see if my bees would resume work, and give up all idea of swarming. That is what they did. The honey season shut down before they got the five frames completely filled, and the bees gradually subsided into a state of leisure.

Other experiments proved that the bees swarmed because crowded, or because they were too hot. In one case a colony that had made no preparations for swarming issued from the hive, clustered on a tree near by, and after having cooled themselves off, returned to their home. As I watched them hanging, I thought what a helpless looking sight they were, and what a striking picture they would make with the title, "Far From Home."

I read up all I could find in the bee-books about swarming, and when I found in John Keys' old work (1814) this brief passage in a paragraph about the troubles of swarming-time, "These disadvantages are admirably remedied by storifying," I said to myself: "How much progress have we made in regard to this matter during a lapse of 77 years?" Bee-keepers knew even then that additional room would prevent swarming. How much more do we know about the matter to-day?

For the past few months I have been cudgelling my brains in search of a bee-hive capable both of expansion and contraction. But I have no inventive genius. Happily others have, and I do not despair of such a hive being discovered. Indeed, I am not sure that it has not already been devised.

The American Bee Journal recently told us that a Mr. Allpaugh had patented a device which looks in this direction. "A Mr. Allpaugh" seems to suggest some obscure bee-keeper unknown to fame, but I must tell you that he is one of our foremost Canadian bee-keepers—a quiet, unassuming man, but possessing the inventive faculty in a high degree. He ties to nothing that is not practical and useful. I am not possessed of his secret yet, but mean to have it so soon as I can scrape up $5 wherewith to buy it. Right on the back of this comes Mr. John Conser's non-swarming hive, described and figured in the American Bee Journal of Nov. 26. Will either of these inventions, or both of them, "fill the bill?" We shall see.

The prevention of swarming is comparatively easy when you work for extracted-honey, because you can "storify" if you have frames of empty combs. You can alternate these with frames having only starters.

But to get comb-honey by means of added space—aye, there's the rub. The bees do not readily take to building new comb in section-boxes. Why is this? I believe it is because of the inconvenience they find for want of room to work. In comb-building a relay of bees hang in festoons that reach clear across the hive. Another relay brings honey and feeds the festooned workers. A third relay takes the pellicles of wax from the festoons, and builds the cells.

When all this has to be done within the limits of a one-pound section, it is "mighty onconvenient" for the bees. They are "cribbed, combined and confined." Cannot some inventive bee-keeper give us a section frame with narrow partitions, just wide enough to induce the bees to finish the sides of the sections? Or cannot we get the public to buy sections reaching clear across the hive, and holding four or five pounds? Or cannot we have cartons, into which a pound of cut honey can be put, and hermetically sealed to prevent leakage?

The public prefers honey in the comb. There is a suspicion possibly of adulteration in the case of extracted-honey. If we allow our extracted-honey to be capped all over and thoroughly ripened, which is necessary to "get the best," we cannot produce extracted-honey at much less cost than we can comb-honey. Then there is the daubing and mess more or less connected with the process of extracting. The most unassuming bee-keeper gets considerably "stuck up." It is well known that I am heretical enough to wish that the extractor had never been invented. I use it as little as possible, and if I can find a way of throwing all the force of my apiary into the production of comb-honey, I shall dispense with it altogether.

This is as far as I have got. I know that swarming can be prevented by giving the bees room to work, as they require and crave to use it, but how to manage this in such a way that they will do their level best in the production of marketable comb-honey, well, this is what, Dr. Miller-like, "I don't know."

I want to add a word on the "swarming fever," as bee-keepers call it: There is such a thing. It is a perfect mania when it takes possession of a colony or an apiary. A colony will swarm, and swarm, and swarm again, no matter how comfortably you may house them.

I flattered myself during the past season that I had discovered a cure for this fever. I take my swarms in a swarming-bag of my own construction. The bees drop into it, and a twist of the bag makes them prisoners in a moment. By hanging a bag of bees on a fence, and leaving them all night, the fever will cool off.

I should say the bag is made of cheese-cloth, so that there is no danger of the bees being smothered. On hiving the captured swarm the next day, they hasten into the home provided, marching to the music of a contented hum, which says as plainly as words can speak: "Oh, how thankful we are to be housed once more."

But, after all, prevention is better than cure, and I prefer to keep my bees from taking the fever, instead of doctoring them after they have got it.

W. F. Clarke.

The following from Thos. G. Newman, editor of the American Bee Journal, who was unable to be present, was read by the Secretary:

A Few Suggestions.

To the Officers and Members of the North American Bee-Keepers' Association:

I regret exceedingly not being able to be present, and with you to enjoy the "love feast" which I feel sure you will have. My health is poor, but I am gaining strength slowly, and though not being able to undertake the journey bodily, I am with you in spirit.

There are some things on my mind, which, were I present, I should submit for your consideration, and I will briefly enumerate them here.

As this city is to have the World's Fair in 1893, it would seem to be very desirable to have the convention of the North American Bee-Keepers' Association for 1893 held in Chicago, so that there may be a monster meeting of the apiarists of America, as well as representatives from all the world. To arrange for such, long in advance, is quite important, so that our visitors from other Nations may know when to come, so as to take it in. I would, therefore, beg to suggest that the location for that year should be definitely settled by the present session; as well as the location for the meeting next year, which might be in any central city between the East and West.

The time, too, is quite important. The World's Fair will open in May and close in October. The month of September would seem to be the most desirable time, as the heat of the Summer will be over, the honey will be mainly harvested, and the apiarian exhibit at the Fair will then appear at its best. Cheap transportation on the trunk lines of railways will bring thousands upon thousands of visitors, and apiarists will *swarm* here, making a *buzzing* that will be pleasant, both in convention and out of it.

Again, this international meeting should, I opine, let its voice be heard on the question as to who should be selected to superintend the Apiarian Department. At the meeting at Keokuk, Dr. A. B. Mason, of Auburndale, O., was selected for the United States, and R. M. McKnight, of Owen Sound, Ont., for Canada. Let this selection be ratified (or some other one made, if desired), and let it be *emphasized*, and sent to Mr. W. I. Buchanan, Chief of the Department of Agriculture, and also to Washington. I think that Hon. Edwin Willetts, who was formerly President of the Michigan Agricultural College, but now is Assistant Secretary of Agriculture, at Washington, can assist us, if requested by you, in convention assembled, to do so. To have a good head is very essential. Without it, a creditable display will be very uncertain.

Will you kindly give these matters due consideration? Let committees be appointed to formulate and present resolutions, and also to bring influence to bear upon those in authority, to give us "a fair show," and thus help us to appear in a creditable light before the world at the coming Columbian Fair.

Thomas G. Newman.

Dr. A. B. Mason, who was also detained by sickness, sent the following as his address on

Apiculture at the World's Fair.

Mr. President and Fellow Bee-Keepers:

Our worthy Secretary has asked me to tell you of the "Outlook for apiculture at the Columbian Exposition."

As yet no one has been appointed by the Exposition managers to have charge of the apiarian exhibit, and although this Association has twice recommended my appointment to that position, I have not felt at liberty to take such steps in preparing for the exhibit, as I could have done if I had authority for acting, and from what I learned in a recent visit to Chicago to see Mr. Buchanan, the Chief of the Agricultural Department, in which department the apiarian exhibit will be placed, it seems quite possible that the wishes of the bee-keepers will not be consulted in making the appointment.

Mr. Buchanan has promised to do all he can to make the apicultural exhibit a success, but says that "the most careful thought should be given to the question how best to fully illustrate an industry in the most attractive and thorough manner in a limited space," and thinks he will be able to allow but one hundred square feet of space for each State exhibit.

It has somewhat dampened my ardor to think that our large and growing industry is likely to be assigned a back seat, as regards space in which to show itself. Why, the Colorado State Bee-Keepers' Association has already applied to me for a thousand feet of space, and if Colorado needs that amount of space, what will be done with California, Wisconsin, Illinois, Michigan, Ohio, New York, and other large honey-producing States?

My idea is that the State Bee-Keepers' Associations of the different States making an exhibit should ask their State Boards of Commissioners for the Columbian Exposition to put the matter of preparing and making the exhibit in their hands, and that the Associations appoint committees of one or more thoroughly competent persons to prepare and make the exhibit, and care for it during the Exposition. The Michigan, Ohio and Colorado State Associations have already appointed committees for this work.

The expense of preparing and making the exhibit should be provided for by the State Commissioners, in the same manner as that for other industries. It seems to me that no special appropriation should be asked for our especial benefit, but, as we represent one of the important industries of our respective States, we should not allow ourselves to be slighted or ignored.

As each State will have a building of its own in which to exhibit its special products, it will devolve upon the bee-keepers of each State to prepare an exhibit there, as well as in the general exhibit of all the States.

I am not sure what will be the best plan for securing the honey, etc., for exhibition. I believe the Colorado Association has suggested, or asked, the bee-keepers of the State to put aside for the Exposition any especially fine honey they may secure during the coming season. As exhibits will have to be on the grounds by April 1, 1893, it will be necessary to do whatever is done in the way of securing comb-honey in fanciful and attractive shapes during the coming season. If every bee-keeper can be induced to put aside the very finest of their crop, to be used at the Exposition, there will be a great abundance, and an individual interest will be secured in the success of the undertaking. Of course, it will be expected that each one will be remunerated for what they may furnish. We cannot be expected to work for glory alone, but pride should be a large element in urging us to use our best efforts to make our specialty show off to the greatest advantage.

It seems quite desirable, if not an absolute necessity, that the Exposition managers at once appoint some one to have charge of the Apiarian Department, to whom we could apply for space and instructions as to what we can do, and what will be required of us, and it seems to me that this Association should take the matter in hand, and see to it that we are recognized, and have a representative to speak and act for us.

Would it not be well to appoint a committee to look after this matter? And this same committee should have authority to act for us, and in our name, in any matter needing our action, at any time when the Association is not in session. Should the Superintendent, through sickness or death, or any other unavoidable cause, be incapacitated for the discharge of his duties as Superintendent, the committee should have power to act for us, and recommend the appointment of some one to take his place, and the Superintendent should be made an *ex officio* member of the committee.

I had hoped and expected to be with you at this "annual feast," but circumstances beyond my control prevents it, but I send you my cordial and kindly greeting, and wish you all a pleasant and profitable time. A. B. Mason.

The following essay by Mr. George H. Knickerbocker, was read at the afternoon session, on

Points of Excellence in Bees.

"The Italian bee—what the principal points of excellence, and to which qualities should we give the preference with a scale of markings as for neat stock?"

The Italian bee, as its name implies, is a native of Italy, and was first successfully imported to this country in 1860. Since that time the race has been multiplied by American breeders until you can scarcely find a colony of of our black, or native bees, that do not show indications of an admixture of Italian blood; yet large numbers are still imported each year, which is a good proof of their superior qualities.

Although we get two distinct types from Italy, the dark, or leather-colored Italians in the north, and the smaller and brighter yellow in the south, the three yellow bands have usually been considered the sole test of purity.

I was also told a few years ago by a gentleman of undoubted integrity, who had been there several times, that there were dark bees in Italy, those that did not show more that one or two yellow bands, unless filled with honey and held to the light. To me this was an explanation of the great diversity of the markings of imported bees and queens.

Let us next briefly notice some of their principal points of excellence as compared with the black or native bees.

The workers have longer tongues, and work on blossoms that the natives do not, and often store white honey when they are working on buckwheat; also, quite frequently, they gather a little honey when the natives are consuming their stores; and towards the close of the honey harvest, as the workers emerge from the cells, they gradually fill the cells in the brood-chamber, and, on account of this trait, no race is so well supplied with Winter stores.

This sometimes results in a less number of finished sections, but where a bee-keeper has a large number of colonies to look after, and when taking into considertion the valuable time required in fixing the feeding the others up, to get them in condition to stand our rigorous Winters, I consider it a desirable characteristic.

They work earlier and later, are more active, less inclined to sting, and protect their stores better. The queens are more prolific; this, combined with the greater activity of the workers, causes them to breed up quicker in the Spring, and, in consequence, they are in better condition to take advantage of the early honey-flow. At least this has been my experience with the dark or leather-colored Italians; while with the very handsome 4 and 5-banded strain it has always been the reverse.

In answering the next question, "To which qualities should we give the preference," a great deal would depend upon the bee-keeper and the circumstances. If the apiary is run exclusively for profit, but little attention need be paid to anything except working, wintering, and comb-building qualities; while in the apiary carried on for pleasure, as well as for the dollars and cents, due attention should be given to gentleness and color; and, again, if a few colonies are kept just for pleasure and recreation, then docility and color may be the qualities largely allowed to predominate.

That it would be desirable to have a scale of markings which would be universally accepted as a standard for the American Italian bee will, I think, be admitted by nearly all who are present at this meeting, and it seems to me that some action can be taken at this time, as well as at any subsequent meeting, by whch a standard can be established, so that queen-breeders will have something to guide them in the selection of their breeding stock, as the breeders of domestic animals have a standard by which to judge every breed and race.

By way of illustration, let us imagine the breeders of the black-faced varieties of sheep, having no model to breed from, and who did not continually reject those animals that did not come up to the standard in both form and markings! If, after a few years of such hap-hazard breeding, Mr. A, who keeps Shropshires; Mr. B, Hampshiredowns; Mr. C, Oxforddowns, and Mr. D, Southdowns, were to turn their flocks together, what would be the result? You could not find a man who would be able to select every sheep and put it in its proper place.

Are we not, as breeders of Italian bees, in this very same predicament? Is there any reason why we should not have some standard by which the average bee-keeper would be able to determine whether or not his bees with three yellow bands contained an admixture of Cyprian or Syrian blood?

It is now an indisputable fact that these races and their crosses have many times been sent out for pure Italians, and that many of the so-called pure Italians show at least a trace of Cyprian or Syrian blood.

As to a scale of markings, I have nothing to offer that I consider anywhere near perfect, but as a suggestion I offer the following:

In a scale of 100 points I would divide them as follows:

Honey gathering and comb-building qualities, 40.
Wintering, 25.
Breeding, 15.
Temperature, 10.
Color—*a.* Workers, 4.
b. Queens, 3.
c. Drones, 3.

I hope, after the discussion which is to follow, that a committee will be appointed, and that they will be able to agree upon some standard for the American Italian bee, and that it will be adopted by this association.

GEO. H. KNICKERBOCKER.

[The discussions which followed the foregoing essays cametoo late for this week's issue. They will appear next week with the rest of the Report.—ED.]

CONVENTION DIRECTORY.

Time and place of meeting.

1892.
Jan. 5, 6, 7.—The Ontario, at London, Ont.
W. Couse, Sec., Streetsville, Ont.

Jan. 6, 7.—California State, at Los Angeles.
C. W. Brodbeck, Sec., Los Angeles, Calif.

Jan. 8.—Indiana State, at Indianapolis.
Geo. C. Thompson, Sec., Southport, Ind.

Jan. 18, 19.—Colorado State, at Denver.
H. Knight, Sec., Littleton, Colo.

Jan. 20, 21.—The Minnesota, at Owatonna.
Wm. Danforth, Sec., Red Wing, Minn.

Feb. 10, 11, 12.—Ohio State, at Cincinnati.
S. R. Morris, Sec., Bloomingburg, O.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Eugene Secor..Forest City, Iowa.
SECRETARY—W. Z. Hutchinson....Flint, Mich.

National Bee-Keepers' Union.

PRESIDENT—James Heddon ..Dowagiac, Mich.
SEC'Y AND MANAGER—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Fair Crop of Honey.

The honey crop was very short in this locality last season, but I have the advantage of having a lot of basswood trees near by, and therefore have a fair crop—about 500 pounds of comb-honey from about 20 colonies. The bees were in excellent condition for the Winter.

ASHER M. COE.

Coe Ridge, O., Dec. 24, 1891.

Bees Consuming Honey.

Bees on the summer stands are wintering well, as are those in cellars, in this locality. Those on the summer stands are consuming considerable honey. Bees are flying this afternoon; the thermometer indicating 54° above zero. There is good prospect for a large crop of white clover next Spring.

D. D. DANIHER.

Madison, Wis., Dec. 23, 1891.

Nectar Secretion.

The past season was the poorest for honey that I have seen in ten years. There was plenty of bloom, but for some reason that I cannot explain, nectar did not secrete freely, except for a few days in September. I commenced the season with 40 colonies, and have 55 now packed for Winter. My surplus comb-honey was 2,000 pounds, and very little of it will grade No. 1 by the new standard.

WM. SHIER.

Marlette, Mich., Dec. 19, 1891.

No Fall Honey.

There was no good honey gathered in this part of the country. There was no Fall flow, and consequently there were no young bees, and there are very few bees in the hives. The bees had to be fed.

JOHN A. WARD.

Conroy, Iowa, Dec. 21, 1891.

Ground Cork for Winter Packing.

I shall use ground cork for packing all my bees next year. I have used 15 pounds, and find that it is superior to all other substances for Winter packing.

Oakfield, N. Y. GEO. M. FULLER.

Bee-Scouts Locating a Home.

In reply to Mr. T. F. Kinsell, as to whether I have seen bees cleaning out hives placed in apple trees, I will say positively that I have seen such. The reason why I know that the same bees entered the hive which cleaned it out, is that I followed the stream of bees, or scouts, to where they were hanging on a tree, for the scouts always keep up communication with the swarm. After discovering the swarm I went back to the hive and watched for the bees to come out, which they did in about an hour. This was at 11 a.m.; in the afternoon I went back only to find about a quart of bees hanging there, which were left after hunting other locations. The hive in the apple tree gave the best proof. There the scouts were in the majority. Sometimes scouts will clean out a tree, but the bees never come there, the majority of scouts having found a more favorable location, but the minority are left, for want of knowledge of the whereabouts of the swarm. They remain where the swarm was until they dwindle away, and finally disappear, only to leave the limb speckled with comb, showing where a large swarm was hanging. Will brother bee-keepers test this matter by putting a few hives next season in trees: in the timber is a desirable place. Nail a board on the hive, and then nail the board to a stay 10 or 15 feet from the ground, or higher if convenient; go to it every day or two. Put a comb in the hive with a handful of rotten wood, and watch the scouts carry out the wood, drop it and fly back for more. In order to get the opinion of the Illinois State Bee-Keepers' Association, I put this question on paper last month, and gave it to President England, to have it voted on. All rose to their feet, affirming that bees do locate a home, when the scouts find one.

Kenney, Ills. GEO. POINDEXTER.

Officers for the Union.

"I don't know" but that Dr. Miller has expressed my views in regard to the National Bee-Keepers' Union as well as I could do it myself. When I sent my annual dues I did not vote at all, for, said I, the majority will vote for the old officers, because they do not know who else to vote for. Now, I do feel that the general amnagement should stay where it is, but the other offices could be passed around, and I believe that it would give new life to the Union. In carrying out friend Miller's suggestion, it is the easiest thing in the world to copy his nominations. No; that would not be carrying out his suggestion, so here goes for more nominations: W. Z. Hutchinson, Hon. R. L. Taylor, Dr. A. B. Mason, Samuel Cushman, C. W. Dayton, E. L. Pratt. These may not all be members of the Union, but they are good men, and ought to be.

GEO. E. HILTON.

Fremont, Mich., Dec. 24, 1891.

Warranted Queens.

Something is radically wrong with the queen-breeders in this country. For the past two seasons I have purchased *warranted* and tested queens, and out of the lot but *one* was prolific. Had I bought cheap and inferior queens, I would find no fault, but when I pay the price *asked*, I have the right to expect a good article, and not a fungus growth. The fault did not lie in the introduction of the queens, for I followed *explicitly* the most approved (?) methods; nor would I grumble or grow "cranky" over an occasional loss, but an absolute failure is more than flesh and blood can endure. Purchasers who spend their hard-earned dollars would be better pleased with less *theory*, and better queens.

Madison, Nebr. A. C. TYRREL.

Bees in Arizona.

Our bees have done very little either in swarming or honey. Cattle eat nearly every thing outside, and as there are but a few acres fenced, our prospects for the future are poor. While bees pay as well as other things, on the average, I think some claim too much for them. We make vinegar out of dark honey.

J. H. BROWN & SON.

Prescott, Arizona.

Bees and Grapes.

In reading my bee-periodicals and some of the local papers, I see that there is considerable said from time to time about bees damaging grapes, as well as some other kinds of small fruit. I claim that it is all "bosh," unless the fruit is first injured in some way or another. I make this assertion from my own experience in growing grapes in the same yard with a number of colonies of bees, at the same time using the grapes as shade for the bee-hives. As my attention has been called to this matter at different times, I have given it much thought, and watched it most carefully.

In the last three years there has been only two instances where the bees have worked on grapes in the least.

In the first instance the damage was caused by the chickens picking and eating the lower branches, or clusters, that were hanging low down within their reach. The second instance was caused by a very severe hail-storm, which bruised or punctured the grapes enough to expose their seeds, enticing the bees to work on them. This lasted only for a few days until the bruises became seared over. You will observe that in both instances the fruit was first injured before the bees would have anything to do with it, and I do not believe that bees will hurt grapes or other kind of fruit unless it is damaged by something else. Using them as I do for shade for bee-hives, large clusters of the delicious fruit hang all around the hives—yes, and even within a few inches of the entrance to the hive. This must certainly give a pretty good chance to test the matter. In conclusion I will say that I really believe that the most of this complaining is caused by prejudice. B. E. RICE.

Boscobel, Wis., Dec. 23, 1891.

The Bee-Keepers' Union.

Glancing over the report of the National Bee-Keepers' Union, I notice that there seemed to be but a small addition to the previous membership, which I cannot understand, in view of the assertion that there are 300,000 bee-keepers in the United States. On the basis of 600 in the "Union," and the assertion above, those who are members stand as 1 to 500 to those who are not. Now, in view of this, it seems to me that the census of real bee-keepers must have been terribly misrepresented, or else our brother bee-keepers are holding back, not from a lack of money, but from a sense of feeling assuring them that they are safe and sound individually in their own neighborhood, and that all money spent in this direction would be lost. If there be any unphilanthropic apiarists in this line, they remind me of those agricolists, who, having become aged, refrain from planting fruit trees on the plea that they will not reap the benefits accruing therefrom. God grant that such selfish motives do not exist amongst bee-keepers, a class of men for whom I have the profoundest respect and admiration. I am loth to believe that bee-keepers would see their fellows suffer if they could avert it. I am afraid they have not as yet been touched so as to see the profound necessity of joining.

Cincinnati, O. H. K. STALEY.

California State Association.

We, the undersigned, realizing the necessity of combined effort on the part of the honey-producers of the State of California, and the need of further legislation for the protection of this industry, and proper representation at the World's Fair in 1893, favor the organization of a California State Bee-Keepers' Association, for the purpose set forth, and to represent the bee-keepers' industry of the whole State of California. To accomplish this object we issue this call, and urge the attendance of every interested person, both male and female, at a meeting to be held at the Chamber of Commerce, Los Angeles, on Jan. 7, 1892, at 9:30 a.m. We purpose organizing, on a liberal basis, excluding no proper person who is interested in apiculture. Prof. A. J. Cook and A. I Root will be with us on this occasion. Signed by J. F. McIntyre, Cyrus Kenney, R. A. Holley, R. Wilkin, L. E. Mercer, G. B. Woodberry, W. A. Norton, Allen Barnett, M. H. Mendleson, Benj. A. Rapp, J. W. Ferree, N. Levering, G. W. Brodbeck, J. A. Odell, H. C. Blaney, and many others.

Los Angeles, Calif.

Wavelets of News.

Where to Keep Comb-Honey.

A room in which to keep comb-honey in good condition should be as dry as possible. During pleasant weather a window protected by a wire screen, to keep out bees and other winged insects, should furnish ventilation. When the weather is damp the window should not be closed, but a little fire should be started in the room to drive out the dampness. A high temperature will not injure honey. If the temperature could be continually maintained up in the nineties, the quality of the honey would be improved.

As the bees always keep their honey in the dark, it seems to me that the room should be kept dark, in which honey is stored.—*Apiculturist.*

Skunks Eat Bees.

After narrowing the entrances to the bee-hives this season, I noticed that the blocks used for contracting were pushed aside from some of the hives nearly every morning. I first supposed that this was due to the severe winds that prevailed, but closer examination showed the grass in front of the hives trampled flat, which gave me the idea that my bees were falling victims to skunks.

A few nights ago, at midnight, in moonlight, I caught one in the act of bumping at the front of the hive and eating the bees as they came forth. Despite the cold and frost, the colony gave those peculiar cries of distress, showing them to be utterly demoralized.

When this is continued night after night, an hour or two at a time, at a season too cold for the bees to fly, the agitation and gorging with food would be enough to destroy the colony, even if the skunk got but few of the bees.

From experiences I have had, I believe that thousands of colonies on low stands are destroyed during the Fall and Spring (especially in mild Winters) by skunks, and that they injure bees more than all other enemies combined.—J. H. ANDRE, in the *N. Y. Tribune.*

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If you have a desire to know how to have Queens fertilized in upper stories, while the old Queen is still laying below—how you may *safely introduce* any Queen, at any time of the year when bees can fly—all about the different races of bees—all about shipping Queens, queen-cages, candy for queen-cages, etc.—all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know, send for "Doolittle's Scientific Queen-Rearing;" a book of 170 pages, which is nicely bound in cloth, and is as interesting as a story. Price, $1.00. For sale at this office.

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

HONEY AND BEESWAX MARKET.

NEW YORK, Dec. 24.—Demand is limited, and supply sufficient. No demand for 2-℔ sections. We quote: Comb—Fancy white, 1-lb., 13@14c; off grades, 1-lb., 10@11c; buckwheat, 1-lb., 9@10c. Extracted—Basswood, 7c; California, 7@7½c; buckwheat, 5½@6; Southern, 65@70c ⅌ gal. Beeswax, scarce and firm, at 26@28c.
HILDRETH BROS. & SEGELKEN,
28-30 West Broadway.

KANSAS CITY, Mo., Dec. 26.—Demand and supply are fair. We quote: White comb, 1lb., 15@16c; dark, 10@12c. Extracted—White, 7c; dark, 5@6c. Beeswax, is in light supply, and demand good, at 23@26c.
CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI, Dec. 26.—The demand is slow, with good supply, except choice comb. We quote: Choice white comb, 14@16c. Extracted, 5@8c. Beeswax is in good supply and fair demand, at 23@25c for good to choice yellow.
C. F. MUTH & SON,
Cor. Freeman & Central Aves.

NEW YORK, Dec. 24.—Demand for honey is fair, with adequate supply. We quote: Fancy 1-℔., 14c; do 2-℔., 12c; fair, 10@12c; buckwheat, 9@10c. Extracted—Clover and basswood, 7@7¼c; buckwheat, 5¾@6c. Beeswax, in fair demand, with adequate supply, 26@27c.
CHAS. ISRAEL & BROS., 110 Hudson St.

CHICAGO, Dec. 26.—The demand is good for fancy white comb-honey, in 1-℔. sections, at 15c; other grades white, 12@14c. Extracted honey slow sale, owing to abundance of fruit. We quote it at 6½@7½c. Beeswax, in light supply and good demand, at 26c.
S. T. FISH & CO., 189 S. Water St.

KANSAS CITY, Mo., Dec. 26.—Demand poor, with large supply of comb. We quote: Comb—1-lb. fancy, 15@16c; dark, 12@13c. Extracted—White, 7@7½c; dark, 5@6c. Beeswax—None in market; light demand.
HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, Dec. 24.—The demand for comb-honey is fair and supply moderate. We quote: Comb, 12@13c; extracted, 7@8c. Beeswax in good supply, and light demand, at 25@26c.
M. H. HUNT, Bell Branch, Mich.

CHICAGO, Dec. 26.—Demand good and supsufficient. We quote: Comb, 14@16c. Extracted, 6@7c. Beeswax, in light supply, and good demand, at 25@27c.
J. A. LAMON, 44-46 S. Water St.

MILWAUKEE, Dec. 26.—Demand fair and supply good, except of the best quality. We quote: Comb—choice, 1-lb., 15@16c; fair, 13@14c; dark, 10@12c. Extracted—white, in barrels or kegs, 7½@8c; dark, 6@6½c. Beeswax, 23@28c.
A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO, Dec. 23.—Demand good, supply small. We quote: Comb, 1-lb., 10@14c. Extracted, 5½@6½c. Beeswax, in light supply and good demand, at 23@25c.
SCHACHT, LEMCKE & STEINER,
16 Drumm Street.

NEW YORK, Dec. 24.—Demand moderate, and supply reduced, with no more glassed 1-℔ nor paper cartons, 1-℔. We quote: Comb, 1-℔, 14@15c. Extracted—Basswood, 7¼@7½c; buckwheat, 5½@6¼; Mangrove, 68@75c per gal. Good demand for dark extracted honey. Beeswax, in fair supply, with small demand, at 26@27c.
F. G. STROHMEYER & CO., 122 Water St.

CHICAGO, Dec. 26.—Demand is now good, supply is not heavy. We quote: Comb, best grades, 15@16c. Extracted, 6@8c. Beeswax, 26@27c. R. A. BURNETT, 161 S. Water St.

BOSTON, Dec. 24.—Demand is good, supply ample. We quote: 1-℔. fancy white comb, 15@16c; extracted, 7@9c. Beeswax, none in market.
BLAKE & RIPLEY, 57 Chatham St.

ALBANY, N. Y., Dec. 24.—Demand is slow, supply not liberal, as stock is mostly in. We quote: White comb, 12@15c; buckwheat and mixed, 8@12c. Extracted — Light, 7@7½c; dark, 6@6½c. Beeswax—Supply light, and demand steady, at 28@29c.
H. R. WRIGHT, 326-328 Broadway.

NEW YORK, Dec. 24.—Demand is fair, and supply ample, except buckwheat comb. We quote: Fancy white comb, 14@15c; buckwheat, 10@11c. Extracted—Clover and basswood in good demand at 6@8c; buckwheat in demand at 5½@6½c. Beeswax in fair demand at 26@28c.
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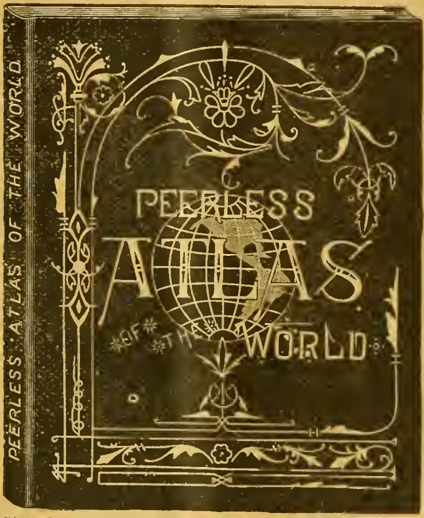

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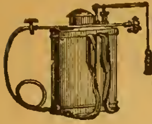

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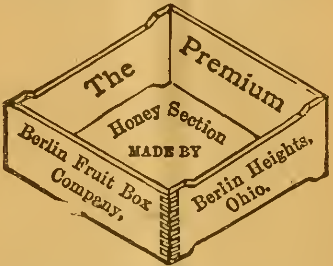

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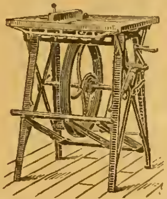

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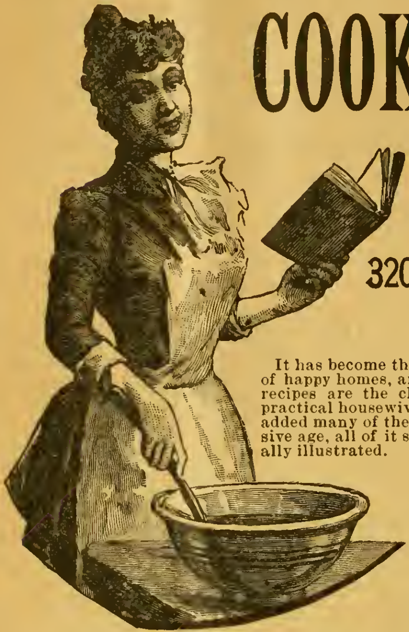

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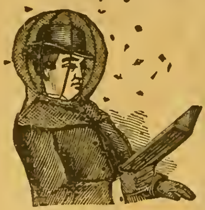

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THOMAS G. NEWMAN,
EDITOR.

Vol. XXIX. Jan. 8, 1892. No. 2.

Editorial Buzzings.

Mr. G. M. Doolittle, we notice, has been secured by the New York *Voice* to write this year on the subject of "Bee-Keeping for Profit and Pleasure," in the department "All Around the Farm." We congratulate the readers of that periodical in advance, and also Mr. Doolittle upon his newly attained honor. Our readers, who are frequently so delighted with his written experiences in the art of bee-keeping, as given in the BEE JOURNAL, will be glad to hear of the wide reading that will attend Mr. D.'s able articles in the *Voice*.

◆

The Apriculturist for January contains a condensed report of the Albany convention. It was written by E. L. Pratt, in his usually interesting style.

Postive Proof was given by Mr. C. P. Dadant, at the Albany convention, that Mr. Smith's 60 colonies of bees had been poisoned by working on the fruit-tree bloom which had been sprayed by Paris green. After this Prof. Lintner stated that he doubted "if bees were killed by the poison."

This reminds us of a story. A man was put into jail for debt. He sent for an attorney, who heard his statement, and said: "They can't put you in jail for being in debt." The man replied: "Thee talks like a fool. I'm in jail now, and thou hast come here and found me."

Talk as he may, the Professor cannot do away with the fact that the bees worked on the poisoned bloom, and they are dead! His doubts will never bring them to life again, even though he may continue to doubt forever?

◆

The Pittsburg *Dispatch* of Nov. 22, 1891, contained the following item:

> A new artificial honey which is said to be likely to become a formidable rival of the natural product, is being made in Germany. It consists of water, sugar, a small quantity of mineral salts, and a free acid. The resemblance is increased by incorporating into the product the scent of flowers.

It is a falsehood. No such "formidable rival" to honey is in existence either in Germany or elsewhere! The item originated in the fertile brain of some scribbler for the press, and was intended only for "sensational" news!

The item will, of course, be published in Germany, but its manufacture will be located in America. Such liars always locate the manufactory as far off as possible, for "distance lends enchantment," you know!

◆

Mr. C. P. Dadant has had an experience with *La Grippe* since returning from Albany. We are glad to state that he is recovering from its effects.

The same disease was responsible for the absence of a number of apiarists.

The Honey and the Gall.

When a man ain't got a cent, an' he's feeling kind o' blue,
An' the clouds hang dark an' heavy, an' won't let the sunshine through,
It's a great thing, oh, my brethren, for a feller just to lay
His hand upon your shoulder in a friendly sort o' way!

It makes a man feel curious; it makes the tear-drops start,
And you sort o' feel a flutter in the region of your heart,
You can't look up and meet his eyes; you don't know what to say,
When his hand is on your shoulder in a friendly sort o' way!

Oh, the world is a curious compound, with its honey and its gall,
With its cares and bitter crosses: but a good world after all,
And a good God must have made it—leastways, that's what I say
When a hand rests on my shoulder in a friendly sort o' way!

—Atlanta Constitution.

◆

Sublime! We were almost struck dumb upon receiving the following letter from a Western firm, dated Dec. 15, 1891:

> At what price could you use some "artificial honey comb" in sections, ready to be put in the hives, to be filled and capped over by the bees?
>
> The combs will be made of wax, double or two sided. Cells ⅝ of an inch long, and hexagon-shaped. The sections will be about 4¼x4¾, and will be put up in white-wood 12-section cases, with glass fronts.
>
> This manner will enable the bee-keeper to produce more honey at a much less cost than at the present time.
>
> We also expect to be prepared to furnish "artificial comb honey" in a short time, both white and amber. I would be glad to hear from you on the above subject.

Can it be possible that they take us for adulterators, frauds, green-goods men, or the like of that?

We wrote them that if they had any "artificial honey-comb," or "artificial comb-honey," we should like to see samples of it; that we had no evidence that any such things were in existence, etc.

We shall see what will come in reply, if anything. We really cannot imagine why they wrote to us about it, and have not yet been able to come to a conclusion as to whether they are deceivers, or are being deceived.

They say that they "expect to be prepared to furnish artificial comb-honey in a short time, both white and amber." This shows that they are not confident! Are they furnishing money to some sharper, who is deceiving them, by promising to invent the "artificial comb-honey" *in a short time*—to enable them to make fortunes?

◆

The Meanest tactics that could be employed are sometimes resorted to by persons who are controlled by their passions. Mr. G. W. Gish, of South Bend, Ind., writes as follows:

> I am troubled here by two fruit men, who kill not only my bees, but those belonging to other persons. They hire boys to stand at convenient places with paddles and tweezers to kill all the bees they can. In such places the sidewalk was almost black with dead bees.

To thus interfere with the legitimate business of any one is a crime, and should be severely punished. Every honorable person will condemn such nefarious practices.

◆

Spraying fruit trees in order to destroy injurious insects which prey upon the fruit is a matter which has received considerable attention among fruit-growers.

At first they sprayed the bloom with London purple or Paris green, but more lately with the Bordeaux mixture. This spraying of the trees *while in bloom* has caused much trouble by the bees working on the blossoms, and being poisoned thereby. Mr. John G. Smith, of New Canton, Ills., lost 60 colonies from that cause, as was noted in the Bee Journal for April 16, 1891, on page 505.

The bee-periodicals raised such a cry of alarm that now cases are very few where the spraying is done before the formation of the fruit, for it has been demonstrated that the curculio and codling moth work on the newly-formed fruit, and not on the blossoms. To spray the trees while in bloom is, therefore, quite useless, and results only in death to the bees—not to the worms.

In the light of these facts our readers will be surprised to see on page 49 of this BEE JOURNAL that Prof. J. A. Lintner, of New York, attended the late meeting of the North American Bee-Keepers' Association, at Albany, and *asked to be heard* on this subject.

He stated that "it would be an advantage, so far as the destruction of some insects is concerned, if spraying could be resorted to previous to and during the bloom." Not content with this, he said that he doubted "if bees were killed by the poison," and pressed his opinion so strongly, that in order to satisfy him, a committee of three was appointed to make experiments to prove "whether the spraying of trees, while n bloom, actually does lead to the destruction of bees."

We are glad to state, however, that the convention did, by vote, condemn the spraying of trees while in bloom, before that committee was appointed.

That committee, if it does anything, should, at the earliest possible moment, make the experiments and report the result through the bee-periodicals.

It is of the greatest importance that no excuse should be allowed for the nauguration of another crusade against the bees next Spring, by encouraging fruit growers to spray fruit trees while n bloom.

It is to be regretted that Prof. Lintner should have been allowed to make such statements before such an important meeting of bee-keepers. Did he come there for that purpose? The matter was not on the programme, and would probably not have been mentioned had he not "asked to be allowed to say" what he did.

We fear that it was a decided *blunder* not to have expunged the matter from he published report of the convention. t would have done no harm to omit it, and that would have been safe.

Now, perhaps the best that can be done will be to publish the report of the committee as soon as it is possible to make the experiments.

To illustrate the evil of such publication, here is a "special cable dispatch" lately published in the Chicago *Post:*

> LONDON, Dec. 26.—The *Horticultural Times* has caused some alarm by asserting that American apples are poisonous, as American grapes were sometime ago found to be, owing to the limbs of trees being syringed with chemical solutions to destroy insects, which poisoned the skin of the growing fruit. Demand is made that the Board of Trade restrict the importation of apples. It is asserted that the use of these poisonous solutions is increasing in the United States. The Board of Trade will probably inquire into the matter, owing to the statement that tons of grapes were destroyed by the New York authorities.

Notwithstanding the fact that it was authoritatively settled many months ago, and widely published to the world (see BEE JOURNAL for Oct. 1 and Nov. 5, 1891, pages 423 and 581), that the Bordeaux mixture, used in spraying those grapes, was a solution of sulphate of copper and lime, and was by the Department of Agriculture pronounced harmless—yet it having been published to the world that the grapes were poisonous, like the Wiley lie, it can never be recalled—the truth never will overtake the falsehood and destroy its influence! It "alarms" every time it is repeated, just as much as if its poisonous effects had never been contradicted! It is just as potent to-day in London, as if it were true that hundreds had been poisoned last Fall in New York, by eating the grapes in question!

At the Late Convention of the Illinois State Bee-Keepers' Association, a committee consisting of Mrs. L. Harrison, G. F. Robbins, S. N. Black, W. J. Finch and A. N. Draper, was appointed to formulate a premium list for the Sangamon County Fair. That is right. The fair premium lists should be looked after everywhere.

La Grippe holds two kings in its grasp, in addition to scores of princes, governors, legislators, and an innumerable number of ordinary mortals, and it made them all feel, for the time being, at least, as if life was not worth living.

It is paying particular attention to our public men. Among those down with it are Secretary Foster, Speaker Crisp, Congressman Mills, Gov.-elect McKinley, Quay, Gov. Campbell, and a number of others. This malarial contagion seems to be more prevalent than when it first appeared.

Hundreds of prominent bee-keepers are down with it, though but few have died. The Editor and Manager of the BEE JOURNAL have about recovered; Drs. Mason and Miller, and others, too numerous to mention them all, are, or expect soon to be, "on deck" again.

Influenza patients have been quarantined in Kent County, England. Any such who visit public places are fined £5 each.

◆

We Have only a few Binders left of the large size, for the BEE JOURNALS previous to this year. If you want one, please send at once, before all are gone. Price, 60 cents.

Queries and Replies.

When to Put Bees into Cellars.

QUERY 800.—When wintering bees in a cellar, should they be put in while the weather is warm, or wait until a hard frost?—W.

I do not know.—J. E. POND.

I would wait until after the frost.—J. P. H. BROWN.

Immediately after they have had a good flight.—J. M. HAMBAUGH.

Just before steady cold weather or real Winter weather begins.—M. MAHIN.

I prefer to have it cool enough so that they will cluster nicely and be quiet.—A. B. MASON.

Put them into the cellar just after a warm spell, when it is getting colder.—C. H. DIBBERN.

Bees go into the cellar best when the mercury ranges at from 35° to 40°.—G. M. DOOLITTLE.

Put them in when you think they are not likely to have any more thorough flights.—JAMES HEDDON.

Just before "freezing up"—about the middle of November in lower Michigan. —R. L. TAYLOR.

Wait until several hard frosts, but house them before they freeze.—EUGENE SECOR.

Wait until there is some hard freezing, but not so hard as to cause frost in the hives.—G. L. TINKER.

You are not likely to get them in before a hard frost, but get them in, if possible, when they are not frozen or wet.—C. C. MILLER.

Put them in at the beginning of a hard frost, or the day following a warm day, *i. e.*, when their bowels are empty.—DADANT & SON.

I would prefer to have them put in after they had ceased to fly, on a warm day. When a person is pinched with cold they would not handle them so gently.—MRS. L. HARRISON.

Put them in before the cold weather comes. The only rule is to put them in while they are dry. I do not like them wet, and decidedly object to snow or ice on them.—A. J. COOK.

I have found in my locality that it is best to put bees into the cellar when it has become settled cold. Do not wait until the ground has become frozen.—H. D. CUTTING.

I would prefer to handle the hives on a day that was just cold enough to keep the bees quietly in the hives. I have moved my apiary a short distance three times in the past twelve years, with great success, and I selected that sort of weather to do the work.—G. W. DEMAREE.

After settled cold weather has come, will be time enough to put bees into cellars. The Winter confinement will be long enough, without any "lengthening." Of course it should not be cold enough to make it a very disagreeable job, for then it would not be carefully done. A little observation will cause the selection of a suitable time for the work.—THE EDITOR.

Topics of Interest.

Illinois State Convention.

JAS. A. STONE.

At this, my first spare moment, I proceed to give a kind of synopsis of the late convention of the Illinois State Bee-Keepers' Association. The attendance was not as large as we hoped for. Some of the members sent their regrets, and that sickness was keeping them away. And we hear from many that were kept away on account of *La Grippe*, etc. Though we had a fair attendance, and an exceedingly interesting meeting.

Our meeting was held in the Senate Judiciary room at the State House, and through the kindness of the State Secretary, I. N. Pierson, and Chief Janitor W. E. Savage, we received the attention that could not fail to make our visit to the capital a pleasant one.

The meeting was called to order by the President, P. J. England, of Fancy Prairie, and Rev. Dr. Johnson, of Springfield, invoked the divine blessing—praying that we might learn lessons of industry from the habits of the little bee.

Mr. G. F. Robbins, of Mechanicsburg, gave us a very eloquent address, to which Mrs. L. Harrison, of Peoria, just as eloquently responded.

Each member was then requested to report as to their several apiaries, which feature proved to be as much of a love feast as it was said to be at the meeting of the Northwestern. And although none could report any light-colored honey, and not a great quantity of dark, it was talked and laughed over as though it was something to amuse rather than disappoint. Later we received a report from A. Coppin, of Wenona, stating that his crop of white comb-honey this year was 3,000 pounds, and that they had no honey-dew.

The Secretary, in his report, took the stand that it was unjust, and prejudiced the minds of consumers, for us to call honey-dew bug-juice. And that honey-dew was not all from the exudation of the aphis; and if it was, it only differed from honey in that it was exuded by aphis, and fell upon the leaves, while honey and wax were exuded by bees in the hive. And, further, that as the season advanced honey-dew became darker, caused by the windy, dusty weather, depositing dust where the honey-dew was on the leaves.

The Secretary's report also showed that our membership had increased to more than 50, largely through the efforts of Mr. A. N. Draper, of Upper Alton.

The Treasurer's report (A. N. Draper) showed a balance on hand of $46.25.

Committee on by-laws, C. E. Yocom, of Sherman, A. Coppin, of Wenona, and G. F. Robbins, of Mechanicsburg, reported, and by-laws were unanimously adopted as a whole.

Hon. J. M. Hambaugh addressed the convention on "What Laws are Bee-Keepers in Need of?" He said that bee-keepers did not need many laws, but that they should have justice by being represented, recognized and protected in their interests the same as all other industries are.

Mrs. L. Harrison read an essay, explained by charts, as follows, on the

Fertilization of Plants by Honey-Bees

It appears to be the first anxiety and care of all animal and vegetable life, to reproduce its kind. As plants cannot walk like animals, other agents, viz: wind, water, birds and insects, were appointed to carry out the requirements of nature.

Some families of plants grow the male and female flowers on separate plants, as the willow and green ash. In others they are found growing on the same branch, as on the oak, walnut, or castor-oil plant. It is plainly seen that in these two modes of growth some foreign agent is necessary, to bring the life-giving power to the embryo plant.

Those plants that are dependent upon the wind to bring together the agents that produce life, yield pollen in great abundance, as the pines, and it is carried great distances. It has been seen covering the ground so thickly that it looked like a layer of sulphur, and it must have come from forests 400 miles distant. Currents of water convey pollen from one aquatic plant to another. In some parts of the world, as in South America or Australia, humming birds are the agents in conveying the pollen to some species of flowers.

Insects are powerful agents in this distribution of the "father dust," and many plants have their own particular insect. *Dicentra spectabilis* never bears seed in this country, because its fertilizing moth has never been introduced from North China, its native habitat. Red clover, *Trifolium pratense*, bore no seed in Australia, until bumble-bees, *Bombus*, were introduced, and they appear to be the chief fertilizers of this valuable forage plant.

When Columbus discovered America he found no honey-bees here. But when the settlers came, they brought apples, pears, quince and cherry trees, and their fertilizers, the honey-bees. "Nature detests self fertilization."

The apple blossom is a perfect flower, containing both sexes in one, with the stamens and anthers waving above the germ; why then does it need a foreign agent to insure fertilization? On a close examination we find that when the germ is in season for the fertilizing powder, the anthers waving above have not burst. When the germ is ready, nature spreads a rich feast of delicious, fragrant nectar, and invites the bees to the nuptials. They come, like millers, with flour on their bodies, and their pollen baskets filled with it, kneaded into bread, and as they load up the nectar, they leave behind them some of the fertilizing powder in exchange.

Five distinct fertilizations must take place to produce a perfect apple; if the seeds on one side are fertilized, and those opposite are not, it will be shrunken, or one-sided.

Nature has so ordered that only a limited number of insects shall survive the Winter's cold; only the queens of some species, as bumble-bees and wasps; but bees dwelling in communities have survived by the thousands.

It has been found, "by actual count in time of fruit in May, that the bees outnumber all other insects twenty to one, upon the bloom; and on cool days, hundreds of bees are seen on the fruit blossoms, while not a single other insect can be found." Thus we see, that the honey-bees are exceedingly important in the economy of vegetable growth and fruitage, especially of all such plants as blossom early in the season.

In England, a fruit grower was surprised to find that the trees near one corner of his grounds, in which were placed colonies of bees, were heavily laden with fruit, while those more remote, had set very sparingly. Then he called to mind the fact of its being very dark and foggy during the blooming of the trees, so the bees flew but a short distance from their hives.

Fruit and bees are inseparable. Horticulturists and apiarists are, like the American Union, one, and inseparable. White clover, *Trifolium repens*, and its relative, Alsike clover, *Trifolium hybrida*, is dependent almost entirely for fertilization upon honey-bees.

Dairymen have complained that bees robbed the pastures of their sweetness. A writer in the *Naturalist* says, "It is estimated that to collect one pound of honey from white clover, 62,000 heads of clover must be deprived of their nectar, and that 3,750,000 visits must be made by the bees." If this estimate is correct, the loss of sweetness is not appreciable.

Charles Darwin experimented for eleven years on the cross-fertilization of plants, and has given to the world some very valuable results, proving the very great value of cross-fertilization, as it is performed by insects. He found by experiments from 20 heads of white clover, protected from insects, one aborted seed was the only result, while 20 heads on the plants outside the net, and visited by bees, yielded by count 2,290 seeds. MRS. L. HARRISON.

A resolution made by Mrs. Harrison was adopted, viz: "That the thanks of this association are due to all the members of the State Legislature, who by voice or vote aided in placing our association upon a solid foundation; and in particular to the Hon. J. M. Hambaugh, of Spring, for his untiring efforts in behalf of our industry, and our Society."

A vote of thanks was also given to Mrs. L. Harrison for her efforts in behalf of the cause of bee-keepers throughout the State.

A resolution was adopted, and a committee appointed to prepare and report a premium list. Committee—Mrs. L. Harrison, Peoria, G. F. Robbins, S. N. Black, W. J. Finch, Jr., and A. N. Draper.

A resolution was adopted, and a committee of three appointed to prepare a code of rules to govern the awards of premiums at fairs. Committee—Geo. F. Robbins, Mechanicsburg, D. D. Cooper, and Chas. Becker.

A motion was carried that when we adjourn, it be to meet at 7:30 p.m. for a night session.

The question box was opened, and discussions followed which were participated in with much animation.

Adjourned.

The night session met at 7:30 p.m., for a sort of "love feast." Among other questions that came up, that of the adulteration of honey, caused a long continued discussion; the arguments generally favoring the passage of a law for its prevention.

SECOND DAY.

On Thursday at 9 a.m., the convention was called to order, with President P. J. England in the chair.

An address by Col. Chas. F. Mills was first in order. Subject—"Bee-Keeping for the Average Farmer."

Among the many things of importance of which he spoke were, of making fine exhibits at fairs, of advertising in papers, of the good results of agitation, and of honey for medicinal purposes.

Mr. Hambaugh moved a vote of thanks to Col. Mills for his usefulness to this association, and his assistance rendered in numerous ways.

On motion of S. N. Black, of Clayton, a committee of three were appointed on legislation, and on the gathering of statistics, consisting of J. M. Hambaugh, Mrs. L. Harrison, and Dr. C. C. Miller.

Dr. C. C. Miller, though absent, had previously sent in an excellent esssay, which was read with good effect. Subject, "The Future of the Illinois State Bee-Keepers' Association." He favored the union of this and the Northwestern Association. He spoke of the importance of a large membership; of the privileges of bee-keepers in some countries, such as receiving bee-papers free, or for special rates, and of his faith in the future of this association, because of his faith in Illinois bee-keepers.

A resolution by S. N. Black was adopted as follows:

Resolved, That the Illinois State Bee-Keepers' Association endorse and accept the action of the Northwestern Bee-Keepers' Association as to joining this association, and that the President be hereby directed to call one meeting each year in Chicago, at such time as the Executive Committee may direct.

A resolution was adopted, that the Secretary be authorized to invite, in behalf of this association, all the other associations of the State to affiliate with us.

C. E. Yocom offered the following resolution, which was adopted:

Resolved, That the Illinois State Bee-Keepers' Association most earnestly protest against the opening of the World's Columbian Exposition on the sabbath.

Resolved, That a committee be appointed to prepare a memorial to be presented to the managers of the World's Fair and the State Board of Agriculture on this subject.

By a resolution the thanks of this association were extended to I. N. Pierson, Secretary of State, and W. E. Savage, Chief Janitor, for the use of the Senate Judiciary room, and for the kind treatment received during our most pleasant sessions.

A vote of thanks was also given to the St. Nicholas Hotel, for its kind hospitality.

By motion a committee of three was appointed to visit the different bee-keepers' societies of the State. The committee are: A. N. Draper, Upper Alton; W. J. Finch, Jr., Chesterfield; and C. E. Yocom, Sherman.

A motion by A. N. Draper prevailed, that a committee of three be appointed to ascertain from the State Board as to the value for honey of alfalfa, and other plants foreign to our soil, and have it inserted in our published report. The committee are Geo. Poindexter, of Kenney; S. N. Black, of Clayton; and L. Mason, of Auburn. The committee reported unfavorably on alfalfa.

The election of officers resulted as follows:

President—Hon. J. M. Hambaugh, Spring, Ills.

Vice-Presidents—1st, Mrs. L. Harrison, Peoria; 2nd, Mr. P. J. England, Fancy Prairie; 3rd, Dr. C. C. Miller, Marengo; 4th, C. P. Dadant, Hamilton; 5th, S. N. Black, Clayton.

Secretary—Jas. A. Stone, Bradfordton.

Treasurer—A. N. Draper, Upper Alton.

Following the election of officers an essay by A. C. Hammond, Secretary of the State Horticultural Society was read as follows:

Bees in Horticulture.

In the economy of Nature it was ordered that the "little busy bee" should be an important factor in making fruit growing successful. Many a man has planted and carefully cultivated, pruned and trained, but when he looked for fruit, found "nothing but leaves," and has therefore concluded that he is not a born horticulturist, or that this is not a fruit country—when a little investigation would have shown him that the failure was caused by lack of fertilization. The wild goose plum, and crescent strawberry are marked illustrations of this truth.

Much can be done to overcome this difficulty by intermixing staminate and pistillate varieties, so that on the wings of the wind the fertilizing pollen will be carried from bloom to bloom. This is a wasteful method, and ninety-nine hundredths of it is lost, to the great disappointment of the planter. But let a colony of bees be put near the orchard or fruit garden, and the busy little workers will, while extracting honey from the blossoms, cover their feet and legs with pollen, and when they go to the next blossom in search of its hidden treasures, leave it clinging to the delicate organs, and its influence will be seen in the large crops of fruit.

It will, therefore, be readily seen that the apiary is a valuable addition to the plant of the horticulturist, not only for the honey it may yield, but as a means of increasing the yield and quality of his fruit (imperfect fertilization often causes imperfect fruit), and therefore increases his profits.

On the other hand, the orchard, vineyard and garden afford excellent pasturage during several weeks in the Spring: and during the entire season, from the first-ripening strawberries to that of cherries, plums, peaches, grapes, pears, and apples; they also gather up the exuding juices from those that have been punctured by birds, grasshoppers and other insects.

"O! yes," says the man ever ready to jump at conclusions, "I have seen them puncturing and sucking the juices from my grapes, peaches and plums, and sometimes even the apples, and I think they do great injury."

Half the world go through life with their eyes shut; at least, without making any careful investigations, and these heedless people, when they see the bees gathering up this wasting sweetness, thoughtlessly conclude that they have punctured the fruit to get the juice, while every entomologist and horticulturist knows that they never injure perfect fruit.

It is therefore evident that these two industries are very nearly related, and that every horticulturist should be a bee-keeper, and to a certain extent every bee-keeper should be a horticulturist.

There is, in some minds, an idea that spraying trees and plants to destroy insects, is necessarily a blow at the life of the bee, as well as dangerous to human life and health. If done while trees are in bloom, I think there is no question as to the existence of this danger. But entomologists and horticulturists who have made careful experiments, and watched the effect of arsenical sprays on fruit bloom, and leaf, are unanimously of the opinion that it is worse than useless to spray until the bloom has fallen, and the young fruit is as large as peas. It is about this time that the eggs of the codling moth are laid and hatched, and the minute particles of poison deposited in the calyx are eaten by the young larvæ, and its days of mischief are suddenly brought to a close.

If horticulturists and apiculturists would attend each others' conventions, and discuss these questions of mutual interest, it would be found to be very profitable to both; it is a great satisfaction to know that they are becoming better acquainted, and beginning to see that there is no antagonism between their interests.
A. C. HAMMOND.

The following resolution, offered by Hon. J. M. Hambaugh, was adopted:

Resolved, That each member of the Illinois State Bee-Keepers' Association be transformed into an Information Bureau, with the object of giving the Secretary such information as would enhance the interests of the pursuit, and make the first report a model, and of incalculable benefit to the public.

Adjourned *sine die*.

JAMES A. STONE, *Sec.*

P. S.—Any bee-keepers wishing to have their names go into the first report of the Illinois State Bee-Keepers' Assotion as members of the same, must send in their names (and $1.00) within the next 30 days to the Secretary. Other bee-papers are requested to copy this report.
JAS. A. STONE.
Bradfordton, Ills.

Chilled Brood and Foul-Brood.

C. J. ROBINSON.

Dr. C. C. Miller says that "chilled brood *never made* foul-brood," and asks: "Does anyone really believe that it ever did? Do they not rather hold this view? The spores of foul-brood are so plentiful that they are floating around everywhere, and a lot of chilled brood is just the right soil for them to take root in, just as white clover seems to come up of itself."

Dr. Miller's assertion that chilled brood never *made* foul-brood is one of the things he "don't know." If he knows that chilled brood is the right soil for foul-brood spores to take root in, he ought to know that chilled foul-brood has, in fact, *made* foul-brood—has spread it.

Readers are not competent—not wise

enough—to "catch on" to any logical reason, in comparing the origin of foul-brood to that of white clover coming up of itself. If there be any truth in Dr. M.'s teaching, it is too subtle for mortals to perceive.

In another issue of *Gleanings* Dr. Miller quotes this from the AMERICAN BEE JOURNAL: "A new theory of foul-brood. A. Leach says the moth-miller lays eggs in the cells besides the queen's eggs, which hatch out, suck the food from the bee-larvæ, which die, causing foul-brood." Dr. Miller asserts by way of comment—"this lacks confirmation." Of course it does, as much so, almost, as does Dr. Miller's theory as quoted in the foregoing.

The idea that foul-brood spores "are floating around everywhere," is an invention of Mr. S. Corneil, but perhaps Dr. Miller may appropriate it without giving credit.

As matters of fact, live "brood is just the right soil" for foul-brood spores to take root in; and if the "spores are floating around *everywhere*," they are floating around every hive of bees, and if the spores float inside and attack chilled brood, certainly live brood could not escape; and if foul-brood spores float everywhere, *all* chilled brood and all bee-brood would, inevitably, be done for, by foul-brood spores.

Learned scientists "don't know" of any bacteria or spores that commonly float around in the atmosphere, other than the so-called diplococcus pneumonites and the streptococcus pyogenes. If Corneil–Miller is credited with truth in the matter, somebody must invent a foul-brood-spore trap.

Richford, N. Y., Dec. 28, 1891.

Are there Black Bees in Italy?

GEORGE THOMPSON.

In Vol. XII, page 188, of the AMERICAN BEE JOURNAL, is a communication which I sent to the Michigan Bee-Keepers' Association, on the improvement of the Italian bee. I there stated that I thought from the unstable character of our Italians, that there must be many dark, and even *black* bees, in Italy, and pointed out the necessity of improving our drones, if we wished to improve the Italian bee.

In the August number, same volume, page 205, Chas. Dadant takes me to task, and denies that there were any black bees in Italy, and offered to pay any man $200 who could prove it. I undertook to do this, and in Vol. XIII, page 127, can be found proof enough to satisfy any reasonable, unbiased mind.

It is unnecessary to quote from that or subsequent articles—suffice it to say that it was generally believed, and even publicly declared in one of our bee conventions in Chicago, that I gave sufficient proof to sustain my assertion.

But now comes forward another witness to testify, and what I consider the crowning evidence, by a native of Italy, an intelligent bee-keeper, and one of the largest exporters of Italian queens in Italy (See *Gleanings* for Dec. 15, 1891, page 948). Question—Did you ever see any black bees in Italy? "Certainly, in some parts of Italy the black bee is to be found." This coming from a gentleman who is supposed to be, and doubtless is, interested in the purity of the Italian bee, ought to set forever at rest the truth that there are black bees in Italy.

Geneva, Ills.

[At the Albany convention last month, Mr. C. P. Dadant stated that black bees were found just over the mountains in Carniola, and if they are there why not expect to find some in Italy? While we were in Italy, in 1879, we certainly saw some in different apiaries, which, to all appearance, were nothing but black bees. If they had any yellow bands, they were obscure, and it would take good feeding with honey, and active exercise on a window in a sunny day, to discover any golden bands.—ED.]

Some Things That I Have Learned.

P. D. WALLACE.

I have kept bees for two seasons, and have stored away a large quantity of bee-lore in that time. The first thing I learned was that the experts do not agree, and in all replies to the Queries in the AMERICAN BEE JOURNAL, the last year, none were answered unanimously. I learned also that bees will swarm in good seasons, and in good localities, if they had surplus room as large as a barn—the assertions to the contrary notwithstanding. I also learned that in years of scarcity, and in poor pasturage, you cannot induce, force, or coax them to swarm to any extent; that there may be nectar in a flower one year, and none the next; that there may be nectar in the flowers in one field, and none in the next field to it, in the same season; and that there may be nectar in a part of a field, and not any, or very little, in the remainder of it; that a field may get poor and "run out," as it is called, and not produce any honey, the same as a wheat field that has been sowed too often to wheat; that the richer the land is, the more honey it gives; that the first crop of the clover is the best; that black bees will work on red clover in this locality as well as Italians, and that neither will work on it in some seasons. The colony that had the most drones in my yard last season, had the most surplus, but it was the strongest colony I had. The AMERICAN BEE JOURNAL is cheaper by half than any of the monthlies. There are as many pages, and as large, and you get four in a month to only one of the others. There need be no more contention over the Punic bees; they simply are not in it. *Apis niger* is buried in oblivion, and we shall hear of them no more.

Richland Centre, Wis.

North American Bee-Keepers' Association.

W. Z. HUTCHINSON.

[Continued from page 21.]

Should Bee-Keeping be Made a Specialty?

This was the next topic taken up for discussion. Mr. McKnight said that if he wished to make a grand success of bee-keeping, he should make it a specialty. Bees can be kept in connection with other pursuits. He scarcely knew whether he would be called a specialist or not. He certainly gave special attention to bee-keeping.

J. E. Hetherington—In connection with this topic, I may say I remember a letter that I wrote to Mr. Quinby, when I was a young man, asking him if he would advise a young man to make a specialty of bee-keeping. Mr. Quinby said *no*. Later in life I referred him to this letter, and asked him how he would *now* answer it; and he said that his answer would still be the same. Just look over the list of those who kept bees 20 years ago, and have succeeded so well that they are still content to follow the business. How few they are! Mr. Quinby advised Winter school-teaching, dairying, or some kind of manufacturing. As I am situated, I find it necessary to be a specialist.

J. E. Crane—I see no reason why bee-keeping need not be a success. In Vermont, bee-keepers are as successful as the farmers. I think specialty ought not to be discouraged, yet it is well to have something in connection with bee-keeping, as it is sometimes a failure.

J. E. Hetherington—I think I ought to qualify my remarks. Mr. Crane says that bee-keeping pays in Addison County, Vt. That is a good location. The same is true of Central New York. The trouble is that bee-keepers are not *positive* enough in their methods to succeed as specialists. So many *think* that a colony has a good queen; that it has enough honey for Winter; that its combs are good enough, etc. The trouble is they do not *know*; and that is why so many fail.

G. M. Doolittle—I was a farmer's boy, and "took to bee-keeping" much against my father's wishes. I once overheard my father telling a man how anxious he was that I should be a farmer. Said he: "I have *prayed* that Gilbert would make a failure of bee-keeping, but it looks now as though he was going to succeed in spite of my prayers." I worked the farm on shares until I saw my way clear to make a living from bees. I have lived to see that farm decline in value from $75 to $40 per acre. Where would I have been if I had remained on the farm? I should have been barely making a living. I have been told that a man who could successfully manage 100 colonies of bees, possessed ability that would command an annual salary of $1,000. But salaried positions are uncertain. I have a home, the fresh air and freedom of the country, and a comfortable living. It is true that I am not now a honey-producing specialist. I have been thrown into queen-rearing, but I look back with regret to the time when I made money from honey alone. In 1874 I drew all my honey (several tons) to Syracuse, and sold it for 28½ cents a pound. Now it would not bring half that, and, for me, there is more money in queen-rearing.

N. D. West—In my opinion, it is not best for a young man to start out as a specialist. If a man gets a few bees, and likes bee-keeping, the next thing you know he will be neglecting his regular business for the bees. Then he will soon become a bee-keeper, and the other business will be dropped.

Next W. Z. Hutchinson read an essay

written by Wm. F. Clarke, on the "Prevention of Swarming."

[This was published last week on page 17.—Ed.]

H. S. Stewart—I think Mr. Clarke gives some good points; one is that of giving plenty of room, but that is considerable work. Removing the queen is one way.

J. E. Crane—I have tried several methods, and I must confess I do not know how to prevent the *disposition* to swarm. Blacks have a greater disposition to swarm than have the Italians. I tried introducing young queens, but it failed. I have given it up in disgust, and decided to let them swarm, and then so manage them as so get the best work out of them by manipulation.

F. H. Cyrenius—I raise brood into the upper story, put a queen-excluder between the two stories, and the bees in the upper story rear a queen, and the bees do not swarm. I work for extracted-honey. In producing comb-honey I cannot prevent swarming.

G. M. Doolittle—In producing comb-honey I have never succeeded satisfactorily in preventing swarming. If a colony is kept from swarming, it is thrown into an abnormal condition. This is unprofitable. It is better to let them swarm, and then so manage as to make the most out of them.

S. Corneil—I know of a bee-keeper in Canada who puts 4 colonies on a revolving platform, or rather a colony at each end of a cross that may be revolved. Each day the cross is given a quarter turn. This mixes the bees, and the mixing seems to disconcert their plans for swarming.

P. H. Elwood—I do not know as I have anything new to offer on this point, It is the same old system that I have used so long—that of removing the queen. I will say, however, that there is a difference in strains of bees.

Ira Barber—What do you do with the queen when you remove her?

P. H. Elwood—If she is old we kill her. If we wish to keep her, we take with her a frame or two of bees and brood.

A Member—I have tried to prevent swarming by introducing young queens, but it did not work this year.

N. D. West—I remove the queen just about as the bees are ready to swarm, and put in a queen-cell that will hatch in two or three days. The queen hatches, and becomes fertile, and the bees do not swarm. By the time the queen is ready to lay, and the colony in any danger of again getting the swarming fever, the season is over. All the cells are cut out, if there are any, when the queen-cell is given. The cell must be protected with a queen-cell protector when given, or it would be destroyed before the bees had discovered their queenless condition, and were ready to accept a young queen. I use hives with considerable room in the brood-chamber, and shade the hives. With a contracted brood-chamber this plan might not be so successful.

J. E. Crane—I have tried putting in a cell, but the bees would always swarm. I have been more successful by introducing virgin queens.

Next came an essay by G. H. Knickerbocker, entitled: "The Italian Bee—What are the principal points of excellence, and to which qualities should we give the preference, with a scale of markings as for neat stock?"

[This was published last week on page 20.—Ed.]

G. M. Doolittle—I am satisfied that the Italian bee is a hybrid. We might adopt a standard for thoroughbreds, but I cannot see how it can be done, and yet to do no injustice.

Mr. Leonard—I see that some are advertising five-banded bees. I would like to know if they are *more* than thoroughbreds?

J. M. Hambaugh—I would like to have Mr. Doolittle tell why he calls Italian bees hybrids?

G. M. Doolittle—Black bees are always black. They are a fixed type. They do not sport. When brought from Italy, Italian bees may produce two-banded or three-banded bees. After awhile we find some of them showing four bands. By selection and care in breeding the four-banded bees we now have produced the five-banded bees, and I expect that we shall yet have bees that are *all* yellow. As Italians do not have a fixedness in their markings, I say that they are hybrids.

C. P. Dadant—Black bees *do* differ. We have the black, the gray and the brown, all called black or German bees. Bees from Italy differ in color. The bands may not always be just so bright, but they are *there*.

E. R. Root—We have imported many queens from Italy, and their progeny always shows the three bands.

G. M. Doolittle—There is no such thing as a one-banded or two-banded bee. If a bee shows *any* yellow, it shows yellow on three bands.

E. R. Root—To a certain extent I agree with Mr. Doolittle. I will say this much: If we look at a bee carelessly, or, perhaps, I should say casually, we would say that it was one or two-banded, when the same bee filled with honey and placed upon a window would show three bands.

C. P. Dadant—The bee-keepers' association of Italy asserts most emphatically that all the bees of Italy are yellow.

J. E. Crane—We know that many three-banded bees "sport," but, for all that, I see no objection to the adoption of a "standard of excellence."

O. L. Hershiser—Have imported bees ever shown more than three bands?

C. P. Dadant—I believe we were the first to import Carniolans, but we quit importing them, and said nothing about it, because we found out that we were getting nothing but black bees. The bees from the other side of the mountains were of a different brown. This proves what I told Mr. Doolittle, that black bees *do* differ.

To save time a committee was appointed to draft a standard of excellence for Italian bees, to be laid before the convention for its consideration. The following were appointed: G. H. Knickerbocker, G. M. Doolittle, C. P. Dadant, and J. E. Crane.

Next came a communication from Dr. A. B. Mason, on "The Outlook for Apiculture at the Columbian Exposition." The Doctor was unable to be present. His duties as postmaster were such that he could not leave at this time. W. Z. Hutchinson read the communication.

[This was published on page 19.—Ed.]

J. E. Hetherington—At the Centennial we were allowed to enter our honey as late as September; yet there were only four exhibitors. It is difficult to keep honey over, and have it look well. I think it should be so managed that we can have at least until the first of August before placing honey on exhibition.

S. Corneil—I think bee-keepers should overwhelm them at Chicago with letters stating what is wanted. Unless space is granted in advance, when the time comes for it to be used, it will be occupied with something else.

J. E. Hetherington—There should be a committee appointed that will attend to this matter from now until the World's Fair opens.

O. L. Hershiser—By July half the number of visitors to the World's Fair will have made their visit. We might have extracted-honey on exhibition early, and then change to comb-honey after the new crop had been harvested.

J. E. Hetherington—That would be all right. Let us show honey and implements, and then make a *grand* show of honey at one particular time, but all this can be arranged and looked after by a committee.

J. M. Hambaugh—I think it would be better and grander to have all the honey show, from all the States, in one grand display.

It was finally moved and carried that a committee of three, with Dr. A. B. Mason as chairman, be appointed to look after the apiarian interests at the coming Columbian Exposition. By vote it was decided that P. H. Elwood and J. M. Hambaugh should be the other two members of the committee.

The Use of Separators.

The question was asked, through the question box, does the use of separators pay for the loss of honey caused by their use? The committee appointed to answer these questions replied that it is not admitted that there is a loss attending their use, but even if a loss did occur, they ought to be used.

J. E. Crane—I have had sections filled in which a bee-space had been allowed around the outside of the sections. The combs were well attached, much better than when no such space was given. Combs are more travel-stained when no separators are used. I secure no more honey by abandoning the use of separators.

N. D. West—I can get more honey with less trouble by using separators.

Place of Holding the Next Meeting.

Buffalo, New York, Toledo, Cleveland, Denver, and two or three other places were mentioned as being desirable places for holding the next convention, but the choice finally fell upon Washington, D. C.

Election of Officers.

The election of officers resulted as follows:

President—Eugene Secor, Forest City, Iowa.

Vice-President—Capt. J. E. Hetherington, Cherry Valley, N. Y.

Secretary—W. Z. Hutchinson, Flint, Mich.

Treasurer—E. R. Root, Medina, O.

Spraying of Fruit Trees.

After the election of officers, Prof. J. A. Lintner, State Entomologist for New York, asked to be allowed to say a few words in regard to the practice of spraying fruit trees with Paris green or London purple, or any arsenical poison. In substance, he said that this practice had become indispensable to success in fruit growing. The egg of the codling-moth is laid just as the blossom falls, and a short time after this is the time to spray the trees in order to destroy the just-hatched larva; but spraying is also resorted to in order to destroy the curculio and other insects, and it would be an advantage, so far as the destruction of some insects is concerned, if spraying could be resorted to previous to and during the bloom. I have always advised against spraying during the time of blooming, although I think experiments are needed to *prove* that spraying the bloom is injurious to bees. I would like to know if any one present *knows* that bees have been injured by the spraying of trees in bloom.

C. P. Dadant—Mr. J. G. Smith, of New Canton, Pike County, Ills., lost 60 colonies of bees from the heavy spraying of trees before, during and after the bloom.

Prof. Lintner—I would ask if there was any examination made of the honey to see if a trace of arsenic could be detected? Unless this was done, or there are other similar cases, I must beg leave to doubt if bees were killed by the poison. There are other injurious insects besides the codling moth; and, in fighting some of these, it is necessary to spray before and during the bloom, but, as I have already said, I have advised against spraying during bloom, because there have been reports that bees have been killed thereby. I think it is in Illinois only where legislation has been attempted upon this point.

I. L. Scofield—We had a large number of healthy colonies when spraying began, and many colonies were dead when the spraying season was at an end.

Prof. Lintner—There need be no *question* upon this matter, as an analysis of the honey gathered, or of the honey in the sacs of the bees that die, would set the matter at rest.

C. P. Dadant—That would not answer, as the bees that eat the poison may not reach their home. Then, again, how are we to *prove* that the bees obtained the poison from such-and-such an orchard? Bee-keepers never have good, strong, healthy colonies die during apple bloom. It is a thing unheard of, except where trees have been sprayed, during bloom, in the neighborhood.

J. E. Crane—I know of a man who sprayed his trees during bloom, and reported finding large quantities of dead bees under his trees.

R. McKnight—I think many bees are killed by the use of Paris green on potato vines.

G. H. Knickerbocker—Many use the poison too strong.

C. P. Dadant—If the poison used is strong enough to kill the insects that feed upon the blossoms, why will not the bees that gather the nectar suffer in a like manner? In our locality, spraying during bloom has been dropped.

P. H. Elwood—I saw a statement by Prof. Cook, saying that he had fed bees a solution of arsenic of the standard strength for killing insects, and it killed the bees. Now, if the poison kills one insect, why not another?

Prof. Lintner—The insects killed are so small that the poison used for the work need not be strong enough to injure the bees.

G. M. Doolittle—I should not like to have it go out that the spraying of potato vines causes more damage than the spraying of fruit bloom. We do not lose bees at the time of the year when potatoes are being sprayed, but at the time of spraying during fruit bloom.

E. R. Root—In the great mass of correspondence that passes through our hands, I notice that many complain of the loss of bees from the spraying of fruit trees, but no such complaints come at the season of the year when potatoes are sprayed.

The Society decided by vote that at the present state of our knowledge, the spraying of fruit trees while in bloom is condemned.

A vote of thanks was given Prof. Lintner.

It was thought that a committee ought to be appointed to make or look after experiments made with a view to *proving* whether the spraying of trees while in bloom actually does lead to the destruction of bees. The following gentlemen were appointed: S. Corneil, Lindsay, Ont., J. E. Crane, Middleburg, Vt., and I. L. Scofield, of Chenango Bridge, N. Y. This committee was to act with Prof. Lintner.

The following from Mr. R. F. Holtermann was read, on

Some Facts not Generally Known about Rendering Beeswax.

The subject to which I am about to refer I shall not attempt to clothe in much language, but it is important, and particularly so in view of recent discussions upon the spread of foul-brood through wax, and how it is to be prevented.

We know that there is scarcely any, if any, natural produce, be it in the animal or vegetable kingdom, which can be heated to any material degree above that in which it was produced, and retain the same properties of nature as it did before so heated, yet we appear to ignore the fact in the melting of beeswax.

The general bee-keeping public do not appear to be aware that wax can be injured by heating almost to the boiling point, or by long and continuous heating at a somewhat lower temperature. Is such the fact? I am convinced that whilst the average wax is rendered with less injury now than in former years, the average wax has lost a portion of the valuable properties which it possessed when first generated by the bee.

Of course, you have a right to ask, Is this a suggestion upon the line of which I wish you to experiment and observe in the future, or have I proof? Well, it is both. I believe it will only require careful reflection and a few arguments in favor of my—call it theory, if you like, to lead many of you to at least reflect.

Wax produced in countries considerably south of us, should surely, if anything, be stronger and better able to resist a high temperature, and yet the average beeswax from the South will break more easily in the hive than our own. After months of reflection, I can only come to the conclusion that the reason is, that in these localities the methods of rendering are more crude, and it is more liable to injury from overheating in that process.

Again, I know and have seen, comb-foundation made from wax rendered in the solar wax extractor, put in the hive much thinner than ordinarily, and yet not sag or break down. I could assign no other reason for this, than that by the rendering it received less injury, as it had not likely reached the same temperature as that rendered by different methods.

Observation has led me to conclude that natural comb is, for the amount of wax in it, stronger than that built from the average beeswax for comb-foundation. I can assign no other reason for this than that already given. You will all be able to understand what this has to do with the foul-brood question.

Instances of foul-brood, although never in my own apiary, have come under my notice, and I do not feel inclined to believe that the disease is spread through beeswax after melting. Yet we should use every precaution until we are sure it is not so spread.

If we have to injure our beeswax by using such a precaution, it is certainly time steps were taken to find out if the disease of foul-brood can be spread as indicated, and that arrangements were made to properly test the matter.

R. F. HOLTERMANN.

Killed by the Sting of a Bee.

DR. J. W. VANCE.

We read not long since in a medical journal the statement that a young man, Wm. H. Danley, of Williamsport, Pa., died from the sting of a bee in 15 minutes from the time he received the sting. Mr. D. complained of excruciating pain; his hand at once began to swell rapidly, and in a few minutes his whole system was affected. Ten minutes after being stung, he fell into a comatose condition, and before aid could be summoned, he was dead.

There were some surmises as to the why and wherefore, but it is idle to attempt to explain why a bee-sting will kill a robust young man, when so many delicate people are stung hundreds of times every Summer with no poisonous effects, except a slight local inflammation. We were somewhat amused by the query of the writer in the medical journal, that the bee that stung the deceased might have imbibed some virulent poison.

It caused us to ask, whence do bees *imbibe* the ordinary poison with which they charge their stings?

About all we know of the nature of the poison is that it is similar to formic acid, but what its relative component ingredients of carbon, hydrogen and oxygen are, we have not yet found out. It is a secretion of certain glands that is gathered into a receptacle called the poison sac. Usually, when the bee inflicts a sting, the poison sac is lost with the sting, which becomes fixed in the skin, by the minute barbs with which the point is furnished. It is said that the bee always dies when it stings.

I have been stung slightly when the sting was not left. I think, when that occurs, the bee does not die, for in my opinion it is the loss of the sting and its appendages that proves fatal to the bee's life.—*Wisconsin Farmer.*

Foul-Brood and the Utah Association.

JOHN C. SWANER.

The following is a copy of the Foul-Brood Bill which will be presented before the Territorial Legislative Assembly, when that body meets this Winter. Every bee-keeper who is interested in the welfare of the pursuit, should get his neighbor bee-keepers, as well as himself, to sign a petition, requesting the member from his district, to vote in favor of this Bill. Act at once, if you expect to do any good. Every individual bee-keeper should be interested.

FOUL-BROOD IN BEES.

An act for the protection of bee-culture, and to repeal all other acts and laws in relation thereto.

Sec. 1. Be it enacted by the Governor and Legislative Assembly of the territory of Utah; that it shall be the duty of the County Court of each county to appoint from among the bee-keepers of the county, one or more suitable persons as Inspectors of Bees.

Sec. 2. These Inspectors shall be appointed biennially, viz: On the first Monday in March of each alternate year, or at the first regular sitting of the Court thereafter, and shall perform the duties of Bee Inspector for two years, and until their successors are appointed and qualified. Said Inspectors shall qualify by taking and subscribing an official oath, and giving bonds with sureties to be approved by their respective County Courts in the sum of five hundred dollars; said bonds to be filed with the clerk of said Courts.

Sec. 3. In determining the fitness of a person to fill the position of Inspector, the Court shall be guided by the local bee-keepers' associations in their respective counties, and it shall be deemed lawful for any Inspector, if he so desires, to invite one or more persons to assist him in prosecuting his inspections. *Provided*, that no charge is made for this voluntary service.

Sec. 4. It shall be the duty of the Inspector to visit all the bees in his county or district at least once a year, and at any time, upon the complaint of any bee owner, that, in his opinion, the disease known as foul-brood exists among the bees of any person, whether owner or custodian. It shall be the duty of the Inspector, to whom the complaint is made, to immediately inspect the bees believed to be thus infected; and if such Inspector finds that foul-brood does exist among such bees, and the owner desires to have them treated, said Inspector shall immediately take charge of and control them, at the expense of the owner, and give them the proper treatment for the cure of the disease. In such treatment he may destroy such portions of the bees and brood, and of the hives and contents, as may be necessary. *Provided*, in case the owner has any doubts about his bees being infected, and objects to their being destroyed, as in this Act provided, then such fact shall be determined by arbitration, the said Inspector choosing one arbitrator, and the owner of such bees another, from among the bee-keepers of said county, who shall immediately inspect such bees, and determine whether or not the bees so inspected are diseased; or, when they cannot agree, they two may choose a third from among the bee-keepers of said county, and the three shall proceed immediately to inspect such bees, and determine whether or not the bees so inspected are diseased.

Sec. 5. If the owner or person in charge of bees infected with foul-brood shall fail to make arrangements acceptable to the Inspector for his compensation, and the necessary expenses to be incurred in the treatment and cure of the bees (which shall in no case exceed three dollars per day and actual expenses), then the Inspector shall immediately wholly destroy the hives and bees so infected by burning or burying the same.

Sec. 6. If any person, by threats of violence, or in any other manner, shall prevent a duly-appointed Bee-Inspector from inspecting, taking charge of, treating or destroying bees, as provided in this Act, on conviction thereof before the nearest Justice of the Peace of the precinct in which said bees are kept, shall be deemed guilty of a misdemeanor, and shall be fined in any sum not less then $5.00, nor more than $25.00 for the first offense, and for each additional offense he shall be liable to a fine not to exceed $50.00.

Sec. 7. To provide for the prosecution of the duties of Bee-Inspectors under this Act, the County Courts are hereby authorized to, and shall appropriate the sum of $3.00 per day, and necessary expenses, for the time that the Inspector is actually employed in the performance of his duties, out of the revenues of the several counties. *Provided*, that in no case, when such Inspector receives compensation from the owner of bees, so infected, for the care, treatment or destruction of the same, as in the Act provided, shall he be paid by the several counties as in this section specified.

SEC. 8. All Acts and parts of Acts, inconsistent with the provisions of this Act, are hereby repealed.

Skunks as Bee-Enemies.

J. ANDERSON.

Last season I discovered that my apiary was regularly visited by a mighty rover. Three of my best hives gave evidences that some foe relished a supper of Italian bees.

For a time I was perplexed to know what the enemy was, so in order to put an end to the depredations, a trap was set, and different kinds of bait was used, but the rover preferred insect food, to any thing I offered; even *dead* drones was no attraction. My three excellent colonies, instead of swarming, rapidly decreased, and the excrements of the enemy which were here and there in heaps through the apiary, showed where they went.

At last, I used as a bait a fat sparrow which is now a very great nuisance in this county. The next morning, before I reached the apiary, the peculiar state of the atmosphere conveyed to my mind the interesting intelligence that the foe was caught, and was nothing but a skunk.

The sparrow's flesh was more enticing to his skunkship than that of the insects on which, for the previous weeks, he had been feeding.

Tiverton, Ont., Dec. 24, 1891.

Bee-Scouts Selecting a Home.

LAWSON HEGLER.

On page 814 (1891), Mr. G. W. Demaree says that he does not care to discuss the subject of bee-scouts further, but I will disregard his desire and have my say.

One morning last summer, I saw bees cleaning out a tree, about 200 yards from my apiary. About noon a swarm issued from a hive that I had been watching, and clustered on a tree near by. I hived them, but about 4 o'clock they swarmed again, and without clustering they made a line for that tree. I started as soon as the bees, and never lost sight of them. I got there as soon as they did, and saw them go in. They were Italians, and as I paid a high price for the queen, I did not propose to lose them. I cut the tree the next morning, and the inside of the tree was as clean as a kitchen floor, with not a trace of old-comb, stump-water or anything else, except a piece of new comb with a few eggs in it.

A few days before that, I cut a tree that I supposed contained bees, but as soon as the tree fell, every bee made off, and on examination it was as nice and dry and clean as bees could make it.

On another occasion I saw a swarm of bees clustered on a bush near the edge of the woods, and the scouts were hunting in every crack and hole in the trees in that piece of woodland, but as soon as they were hived they came to the hive. If there are plenty of flowers and a good honey-flow, bees will hunt a place near by, and go to it; but if there is a scarcity, they will fly until they find a suitable location, cluster, send out scouts, find a cavity, and go to it.

I could give other proofs, but I think this will suffice.

McLean, O.

The Convention Hand-Book is very convenient at Bee-Conventions. It contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee-Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with Subjects for Discussion. In addition to this, there are about 50 blank pages, to make notes upon, or to write out questions, as they may come to mind. They are nicely bound in cloth, and are of the right size for the pocket. We will present a copy for one new subscription to the BEE JOURNAL (with $1.00 to pay for the same), or 2 subscribers to the HOME JOURNA may be sent instead of one for the BE JOURNAL.

Now is the time to join the National Bee-Keepers' Union. Send to this office for the necessary Blanks.

CONVENTION DIRECTORY.

Time and place of meeting.

1892.
Jan. 18, 19.—Colorado State, at Denver.
H. Knight, Sec., Littleton, Colo.

Jan. 20, 21.—The Minnesota, at Owatonna.
Wm. Danforth, Sec., Red Wing, Minn.

Feb. 10, 11, 12.—Ohio State, at Cincinnati.
S. R. Morris, Sec., Bloomingburg, O.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Eugene Secor..Forest City, Iowa.
SECRETARY—W. Z. Hutchinson....Flint, Mich.

National Bee-Keepers' Union.

PRESIDENT—James Heddon ..Dowagiac, Mich.
SEC'Y AND MANAGER—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Large Increase.

I had 44 colonies of bees, Spring count, which increased to 76 colonies, and gave me 2,000 pounds of comb-honey, and from 600 to 700 pounds of extracted-honey, all of which was from basswood—not a pound of dark honey in the lot. I sold 1,000 pounds of comb-honey at 15½ cents per pound to Stewart & Elliott, at Minneapolis, Minn. I have united them down to about 60 colonies for Winter.

GEO. H. AURINGER.
Bonniwell's Mills, Minn.

Bees Working Now.

I have received the annual report of the National Bee-Keepers' Union, together with the membership blank, to-day. In reply I will say that I am glad to see such an increased membership, and I am also glad to vote for some of the good members for the offices to be filled. At some later date I will give you some little idea of bee-keeping in this locality. Probably you will hesitate to believe, when I tell you that my bees are now working every day. Of course they are not storing any surplus, but they are gathering enough to live on. You know that the bees in this locality are all wintering on the summer stands, and require but little care during the Winter. Bee-keeping here would be a grand success, if carried on in as thorough a manner as in the East; as it is, we frequently get tremendous crops.

W. A. CHOATE.
Colton, Calif., Dec. 20, 1891.

They Laugh at Us.

I am very fond of reading the AMERICAN BEE JOURNAL, the contents of which are always very interesting to me, and are of much value for bee-culture in general. In order that Germany may profit by the advancements of American apiculture, as well as other countries, I have a column in the *Bienen-Centralblatt*, in which I regularly once a month give translations from American, French, Italian, and other bee-periodicals. Allow me to say that it would be better to stop that humbug about the "golden Carniolans." People in Carniola are laughing about it, and such a stupid article as Fleischmann's in the *Leipziger*, is the result.

H. REEPEN.
Hessen, Germany, Dec. 12, 1891.

My First Lessons in Bee-Keeping.

I was born in Preble County, O., Sept. 19, 1814, and when I was about 6 weeks old my parents took a notion to move to Indiana Territory, and being in my minority, I went with them. It was there that I took my first lessons in bee-keeping. We found our first colonies in hollow trees, and from Nature we took our first lessons, using sections cut from hollow trees for hives. We wintered our bees in those hives on the summer stands, without any protection whatever, when the thermometer often indicated 16°, 20° and 25° below zero. Here in Northern Iowa bees winter in hollow trees, where 40° below zero is no strange occurrence, and it was from those indications that I planned my bee-house. There has been great improvement during the last 50 years in bee-keeping, but we have had to go to the bees themselves for the suggestions. There may be a certain temperature in which it would be best to winter bees, but if there is, I would rather believe it to be below than above the freezing point. There is always more or less dampness arising from a healthy colony of bees, and it should have a way to

escape, so as not to condense immediately around the bees. Keep bees dry and quiet, and I think they will survive a temperature of 25° below zero. Mine survived 16° below zero in the house last Winter, and I have a neighbor whose bees are yet (Dec. 18) on the summer stands, without any protection, and still are all right. The thermometer has been 10° below zero. I housed mine on Nov. 13, 1891.
C. LOWER.
Decorah, Iowa.

My Experience in Keeping Bees.

I have read the AMERICAN BEE JOURNAL for several years, but have not noticed any correspondence from this locality. There are quite a number keeping bees here, but I do not think they know of the existence of the BEE JOURNAL. I have taken several bee-papers, but I like it better than all others. I commenced to keep bees in 1881, with one colony of black bees, in a box hive, which cost me $5.00. I had an increase of 12 swarms within two years. They were all hived in 8-frame Langstroth hives. In 1884 I lost them all from the use of honey-dew. I then purchased another colony, and now have 43. From 28, Spring count, I got, during the past Summer, 800 pounds of white comb-honey, and an increase of 15 swarms. I have 23 in boxes 3x12, packed with chaff; the other 20 are in the cellar. As this is my first experience in wintering bees in a cellar, I thought I would risk only part of them in that way.
CHAS. E. FALKNER.
Pioneer, O., Dec. 21, 1891.

Bees Wintering Well.

The honey crop of last season was very light, and the quality was very poor and dark. Owing to the cold weather during Spring, we obtained scarcely any white clover honey, though there was an abundance of white clover bloom. My bees are wintering well.
A. F. SANGER.
Pilot Grove, Mo., Dec. 29, 1891.

Wintering Bees on Honey-Dew.

I have 41 colonies of bees in the cellar, in fair condition. I did not get much honey last Summer—only 700 pounds, and that was rather dark, and I had only 4 or 5 swarms. I had to feed 6 colonies. I do not know how they will winter on honey-dew. I find that the dark honey improves the longer it is kept. We sell it here at from 8 to 12 cents per pound, in the comb.
WM. L. MITCHELL.
Erie, Ills., Dec. 30, 1891.

Few Swarms, and Little Honey.

The past season in Pennsylvania, while not a complete failure, was a poor one—many apiaries yielding nothing for surplus. There was but little swarming. Most of the colonies have enough to Winter on. My yield was 600 pounds, from 16 colonies, of extracted and comb-honey. I sold the comb-honey for 15 cents per pound, at the store and to neighbors; the extracted I sold for 11 cents per pound. Honey is scarce, but at the prices demanded (20 cents at retail) it sells slowly.
GEO. SPITLER.
Mosiertown, Pa., Dec. 28, 1891.

Good Crop of White Honey.

This has been a fairly good year for honey, with those who cared for their bees properly. The crop of white honey was good, but the fall flow did not amount to scarcely anything. I have done better than any one else in this locality. Some report but very little honey. The honey flow commenced about June 1 and continued till July 20. I commenced the season with 13 colonies, increased to 24 by natural swarming, and secured 700 pounds of comb honey. One swarm went to the woods. I winter my bees on the summer stands; 13 colonies are in boxes packed in chaff, and 10 are in the Root dove-tailed winter cases.
D. I. WAGAR.
Flat Rock, Mich., Dec. 29, 1891.

Bees Wintering on Summer Stands.

Last Spring I had 45 colonies of bees—all that were left out of 75 of the fall before. I took from them 1,500 pounds of comb-honey, increased them to 75 colonies again, which are now on the summer stands in double-walled hives, and appear to be in good condition. Last year was the worst for wintering bees, for 10 years. Some that had but few are without any now. There was plenty of white clover, but it did not yield any honey. Our crop was mostly from raspberries and basswood.
J. H. MANCHESTER.
Preble, N. Y., Dec. 29, 1891.

Mine are Fine Italian Bees.

I am a beginner in apiculture, and a great friend of the honey-bee. I have enjoyed the work so far very much. I have 51 colonies, which go into winter quarters in good condition. During the past season I took off 300 pounds of extracted-honey. It would have been an excellent year for honey had the drouth not set in. I notice one of my colonies does not gather propolis; or has not during the past two seasons. I got one swarm from this colony this season, and have never found propolis in the surplus cases. They are jet black bees. I bought 24 Italian queens, and introduced them into the hives of black bees. They were fine queens, and proved to be a success. Now all my bees are fine Italians. I send you the Pittsburgh *Dispatch*, and marked an item entitled, "A New Artificial Honey." What comment have you to make?

Moselle, Mo. JAMES A. POWERS.

[Our comment is on page 37—ED.]

That Cook-Book Premium.

When the AMERICAN BEE JOURNAL of Dec. 10 arrived, I was agreeably surprised. On stepping into the house, my wife, having it in her hands, looked up into my face with a smile, and said: "Are you going to take this paper next year?" "Yes," I replied, "we cannot do without it." Mrs. Fisher, holding the paper up, said: "I want this book," and handed the paper to me. I read the whole of page 766. "I want that cook-book," said my wife a second time. "All right, wife," I said, "we will accept the offer, and you shall have that cook-book. Now, dear reader, if you want the eyes of your better-half to sparkle, and a sweet smile to roll across her face, just look up the BEE JOURNAL, and let her read what is offered on page 766; then tell her that you accept that offer, and that she shall have the book. Read that page carefully, and see how much is offered for $1.30. Show your friends and neighbors that liberal offer, and you will succeed in introducing the AMERICAN BEE JOURNAL into many homes where it has never gone before. Bro. Newman gives us a first-class weekly BEE JOURNAL. Now let each reader show his or her appreciation by getting a few new subscribers, thereby enabling the JOURNAL to be a greater blessing to bee-keepers in the year 1892.

JOHN D. A. FISHER.
Woodside, N. C., Dec. 29, 1891.

Wavelets of News.

Successful Apiarists.

To be successful in any business you must be, love with it. No one can make a success with bees when he takes it up because he thinks there's "money in it." He will soon abandon it in disgust."—*Missouri Bee-Keeper.*

Welcome Visitor.

A welcome monthly visitor is the ILLUSTRATED HOME JOURNAL, a fine publication for the family and fireside, devoted to fashion, music, household topics, decorative art, and interesting stories.—*New Bedford, Mass., Standard.*

Bee-Keepers' Union.

The Bee-Keepers' Union has done a grand and good work in defending bee-keepers. The Union has 571 members. If a neighbor gets slightly offended at a bee-keeper, his first attempt at revenge is to work on the City Council to have the bees declared a nuisance, and have them removed from the city limits.—*Missouri Bee-Keeper.*

☞ Many "Wavelets of News" are crowded out this week.

Convention Notices.

☞ The annual meeting of the Colorado State Bee-Keepers' Association will be held in Denver, Jan. 18 and 19, 1892.

H. KNIGHT, Sec., Littleton, Colo.

☞ The Minnesota Bee-Keepers' Association will meet in Owatonna, Minn., on Jan. 20 and 21, 1892. Free entertainment will be provided for those attending by the citizens of Owatonna, and it is expected that the railroads will carry those attending, at reduced rates. The State Horticultural Society hold their annual meeting at the same time.

WM. DANFORTH, Sec., Red Wing, Minn.

☞ The Ohio State Bee-Keepers' Association will hold its next annual meeting at the West-End Turner Hall, on Freeman Avenue, Cincinnati, O., from Feb. 10 to 12 inclusive, 1892, beginning at 10 a.m. Wednesday, Feb. 10. All local associations should endeavor to meet with us or send their delegates. Those intending to be present, will please send their names to the Secretary, at their earliest convenience. The President will endeavor to get reduced railroad rates, and also reduced rates at hotels. The programme will soon be issued, and all particulars published.

C. F. MUTH, Pres., Cincinnati, O.
S. R. MORRIS, Sec., Bloomingburg, O.

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OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

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Advertisements intended for next week must reach this office by Saturday of this week.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

☞ Send us *one new* subscription, with $1.00, and we will present you with a nice Pocket Dictionary.

☞ The date on the wrapper-label of this paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to pay for another year.

☞ Systematic work in the Apiary will pay. Use the Apiary Register. It costs:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

☞ As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.

YOU NEED an Apiary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for $1.25; or for 200 colonies for $1.50. *Order one now.*

Supply Dealers desiring to sell our book, "Bees and Honey," should write for terms.

We Club the American Bee Journal and the Illustrated Home Journal, one year for $1.35. Both of these and Gleanings in Bee Culture, for one year, for $2.15.

If You Have any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time.

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

When talking about Bees to your friend or neighbor, you will oblige us by commending the BEE JOURNAL to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the Convention Hand-Book, by mail, postpaid. It sells at 50 cents.

HONEY AND BEESWAX MARKET.

NEW YORK, Dec. 31.—Demand is limited, and supply sufficient. No demand for 2-℔ sections. We quote: Comb—Fancy white, 1-lb., 13@14c; off grades, 1-lb., 10@11c; buckwheat, 1-lb., 9@10c. Extracted—Basswood, 7c; California, 7@7½c; buckwheat, 5½@6; Southern, 65@70c ℘ gal. Beeswax, scarce and firm, at 26@28c.
HILDRETH BROS. & SEGELKEN,
28-30 West Broadway.

KANSAS CITY, Mo., Dec. 31.—Demand and supply are fair. We quote: White comb, 1lb., 15@16c; dark, 10@12c. Extracted—White, 7c; dark, 5@6c. Beeswax, is in light supply, and demand good, at 23@26c.
CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI, Dec. 31.—The demand is slow, with good supply, except choice comb. We quote: Choice white comb, 14@16c. Extracted, 5@8c. Beeswax is in good supply and fair demand, at 23@25c for good to choice yellow.
C. F. MUTH & SON,
Cor. Freeman & Central Aves.

NEW YORK, Dec. 31.—Demand for honey is fair, with adequate supply. We quote: Fancy 1-℔., 14c; do 2-℔., 12c; fair, 10@12c; buckwheat, 9@10c. Extracted—Clover and basswood, 7@7¼c; buckwheat, 5¾@6c. Beeswax, in fair demand, with adequate supply, 26@27c.
CHAS. ISRAEL & BROS., 110 Hudson St.

CHICAGO, Dec. 30.—The demand is good for fancy white comb-honey, in 1-℔. sections, at 15c; other grades white, 12@14c. Extracted honey slow sale, owing to abundance of fruit. We quote it at 6½@7½c. Beeswax, in light supply and good demand, at 26c.
S. T. FISH & CO., 189 S. Water St.

KANSAS CITY, Mo., Dec. 31.—Demand poor, with large supply of comb. We quote: Comb—1-lb. fancy, 15@16c; dark, 12@13c. Extracted—White, 7@7½c; dark, 5@6c. Beeswax—None in market; light demand.
HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, Dec. 30.—The demand for comb-honey is fair and supply moderate. We quote: Comb, 12@13c; extracted, 7@8c. Beeswax in good supply, and light demand, at 25@26c.
M. H. HUNT, Bell Branch, Mich.

CHICAGO, Dec. 31.—Demand good and sup-sufficient. We quote: Comb, 14@16c. Extracted, 6@7c. Beeswax, in light supply, and good demand, at 25@27c.
J. A. LAMON, 44-46 S. Water St.

MILWAUKEE, Dec. 30.—Demand fair and supply good, except of the best quality. We quote: Comb—choice, 1-lb., 15@16c; fair, 13@14c; dark, 10@12c. Extracted—white, in barrels or kegs, 7½@8c; dark, 6@6½c. Beeswax, 23@28c.
A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO, Dec. 30.—Demand good, supply small. We quote: Comb, 1-lb., 10@14c. Extracted, 5½@6½c. Beeswax, in light supply and good demand, at 23@25c.
SCHACHT, LEMCKE & STEINER,
16 Drumm Street.

MINNEAPOLIS, Minn., Dec. 29.—Demand is moderate, supply ample, and shipments coming in freely. We quote: White comb, 17@18 cts.; dark, 14@15c. Extracted, 10@10½c.
STEWART & ELLIOTT.

CHICAGO, Dec. 31.—Demand is now good, supply is not heavy. We quote: Comb, best grades, 15@16c. Extracted, 6@8c. Beeswax, 26@27c. R. A. BURNETT, 161 S. Water St.

BOSTON, Dec. 30.—Demand is light, supply ample. We quote: 1-℔. fancy white comb, 14@15c; extracted, 6@7c. Beeswax, none in market.
BLAKE & RIPLEY, 57 Chatham St.

ALBANY, N. Y., Dec. 30.—Demand is slow, supply not liberal, as stock is mostly in. We quote: White comb, 12@15c; buckwheat and mixed, 8@12c. Extracted—Light, 7@7½c; dark, 6@6½c. Beeswax—Supply light, and demand steady, at 28@29c.
H. R. WRIGHT, 326-328 Broadway.

NEW YORK, Jan. 1.—Demand is light, and supply large, except buckwheat comb. We quote: Fancy white comb, 12@14c; buckwheat, 9@11c. Extracted—Clover and basswood in good demand at 6½@7c; buckwheat ind emand at 5@6c. Beeswax in fair demand at 26@28c.
F. I. SAGE & SON, 183 Reade St.

NEW YORK, Dec. 30.—Demand moderate, and supply reduced, with no more glassed 1-℔ nor paper cartons, 1-℔. We quote: Comb, 1-℔, 14@15c. Extracted—Basswood, 7¼@7½c; buckwheat, 5½@6¼; Mangrove, 68@75c per gal. Good demand for dark extracted honey. Beeswax, in fair supply, with small demand, at 26@27c.
F. G. STROHMEYER & CO., 122 Water St.

Money in Cabbage and Celery.—"Blood will tell." Good crops cannot be grown with poor strains of seed.

For 16 years Tillinghast's Puget Sound Cabbage, Cauliflower and Celery Seeds have been gaining in popularity. The most extensive growers all over the Union now consider them the best in the world. A catalogue, giving full particulars regarding them, will be sent free to any one interested. When writing for it, enclose 20 cents in silver or postage stamps, and we will also send "How to Grow Cabbage and Celery," a book worth its weight in gold to any grower who has never read it. Address
ISAAC F. TILLINGHAST,
18A16t La Plume, Pa

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line**, for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

WANTED—Bee-keepers to send for my price and samples of Comb-Foundation.
JACOB WOLLERSHEIM, Kaukauna, Wis.
1Atf

FOR SALE.—TEN BARRELS OF CHOICE Extracted-Honey. Address
24Atf B. WALKER, Capac, Mich.

Advertisements.

Hulbert Fence & Wire Co. St. Louis, Mo.

Artistic Metal Workers.
Brass, Iron and Wire Office-work.
Railings, Crestings, Nettings, etc.
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Shipped everywhere. Agents wanted
Write for Catalogue and Estimate.

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BEE SUPPLIES RETAIL —AND— WHOLESALE

Everything used in the **Apiary.** Greatest variety and **largest** stock in the West. New catalogue, **54** illustrated pages, free to Bee-Keepers.

21Atf E. KRETCHMER, Red Oak, Iowa.

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FRUIT TREES AT WHOLESALE

Get our catalogue and save 50 per cent.

Golden Rule Nursery, Hartford City, Ind.
23-24-1-2

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The Honey Almanac

FOR 1892.

JUST the thing needed to create a **demand** for HONEY at home. Bee-keepers should scatter it freely. It shows the uses of Honey for Medicine, Eating, Drinking, Cooking, for making Cosmetics, Vinegar, etc.; also uses of BEESWAX. Price, 5 cts.; 25 copies for $1.10; 50 copies, $1.70; 75 copies, $2.30. 100 for $2.90. The foregoing are POSTPAID prices.

Prices when sent by EXPRESS or FREIGHT: 100 for $2.50; 500 for $10.00; 1,000 for $15.00.

The Bee-Keeper's name and address will be printed on the first page without extra cost, when 25 or more are ordered at one time.

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WONDER STRAWBERRY

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A MAN with a little capital—about $500.00—can go as a partner in a business. If he is willing to work he can make from $10 to $15 every day for himself, besides. Territory to sell. The business continues in winter and summer throughout the United States. Sickness and old age is the cause of wanting a partner. Address, **FREDERICH SCHACH,**
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See what my Circular says about them. Sent free. **J. A. ROE,**
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FRIENDS, I make a Specialty of **Fine Italian Queens.** Untested, March, April and May, $1.00; after, 75c. each. $4.20 for Six, $8.00 a dozen. Five Banded Bees, the yellowest in America, same price as above. Money Order Office, Greenville.

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In March and April, each	$2.00.
In May and June, each	1.80.
In July and August, each	1.60.
In September and October, each	1.40.

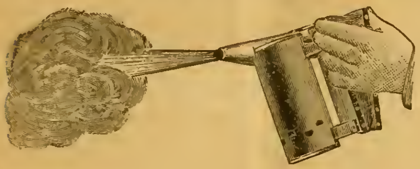
The arrival of the Queens is guaranteed. Those that die during the voyage, if returned by letter, are replaced by mail, postpaid. No order for less than 8 Queens by express, will be accepted.

The money must be sent with the order. Discount of 5 per cent. on the orders for all the year, if ordered in February.

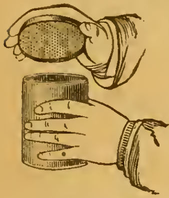
D. TREMONTANI,
Porto Valtravaglia, Lake Maggiore, Italy.
2C1y

Mention the American Bee Journal.

HILL'S BEE-SMOKER AND BEE-FEEDER



Smoker burns hard-wood chips without special preparation. Very reliable. Greatest smoking capacity. Easiest to start. Cheapest, because it saves time. Price, $1.20; by mail, $1.40; per dozen, $10.80.



Best Bee-Feeder. Most convenient. Saves feed. No daubing or drowning Two to seven Feeders full may be given a colony at one time, which will be stored in the combs in 10 hours. Price, per pair, 30 cents; by mail, 40 cents; per dozen, $1.60. Has a sale of 2,000 per month.

Thos. G. Newman & Son, Chicago, Ill.; W. H. Bright, Mazeppa, Minn.; G. B. Lewis Co., Watertown, Wis.; Chas. Dadant & Son, Hamilton, Hancock Co., Ills.; E. Kretchmer, Red Oak, Iowa; H. McK. Wilson & Co., 202 Market St., St. Louis, Mo.; F. H. Dunn, Yorkville, Ills.; W. D. Soper & Co., Jackson, Mich.; Chas. A. Stockbridge, Ft. Wayne, Ind.; A. F. Fields, Wheaton, Putnam Co., Ind.; W. S. Bellows, Ladora, Iowa Co., Iowa; E. F. Quigley, Unionville, Mo.; Gregory Bros., Ottumwa, Iowa; M. H. Hunt, Bell Branch, Wayne Co., Mich.; P. L. Viallon, Bayou Goula, La.; Miller Bros., Bluffton, Mo.; Chicago Bee-Keepers' Supply Co., Topeka, Kans., keep our Feeders and Smokers for sale.

A. G. HILL, Kendallville, Ind.
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Our A B C of Bee-Culture is a cyclopedia of 420 6x10 pages, handsomely illustrated with over 300 engravings. It has had frequent and thorough revisions, and has had the enormous sale of 42,000 copies in 11 years; 10,000 more are in the press. Price, in cloth, $1.25, postpaid. Clubbed with Gleanings, $2.00.

Our Dovetailed Hive is now the popular one of the day. It takes like **hot cakes,** and is being sold by the carload to all parts of the country.

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Scientific Queen-Rearing
AS PRACTICALLY APPLIED;

Being a Method by which **the very best of Queen-Bees** are reared in perfect accord with Nature's Way; by

G. M. DOOLITTLE.

In this book the author details the results of his Experiments in Rearing Queen-Bees for the past four or five years, and is the first to present his discoveries to the World.

Bound in Cloth—176 pages—**Price, $1.00,** postpaid; or, it will be Clubbed with the American Bee Journal one year, for $1.75—with the Illustrated Home Journal, for $1.25; or the two Journals and the Book for $2.00.

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WILL FURNISH YOU the coming season. No. 1 White Basswood, 4¼x4¼, one-piece V-Groove Sections, at $2.50 per 1,000; second quality, $1.50 per 1,000. White Basswood, 16-pound Shipping Cases, in flat, $7.00 per 100. All our goods warranted. Special prices to dealers. Our Sections are in use in nearly every State in the Union.

WAUZEKA MFG. CO., Wauzeka, Wis.
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—BEING—

A talk about some of the Implements, Plans and Practices of a Bee-Keeper of 25 years' experience, who has for 8 years made the Production of Honey his Exclusive Business.

By Dr. C. C. MILLER.

—o—

Its descriptions commence with the necessary work in the spring, and run through the entire Year, detailing the methods of doing, as well as telling when to do, all that should be done in the apiary. It contains 114 pages, and is nicely bound in cloth.

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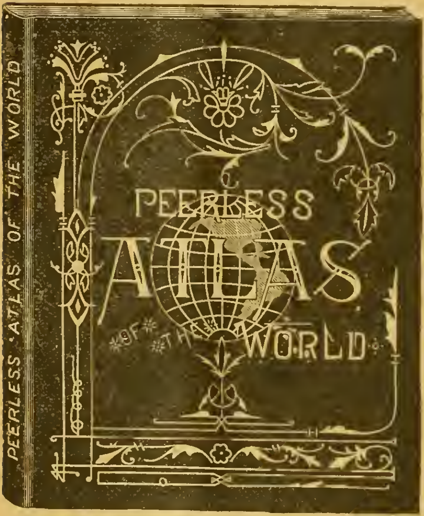
Of each State and Territory, of all counties of the United States, and of American Cities with over 8,000 inhabitants.



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LARGE AND MAGNIFICENT ILLUSTRATIONS embellish nearly every page of the letter-press matter, and faithfully depict scenes in almost every part of the world. They are intensely interesting and constitute an art collection which will be viewed with pleasure and admiration for years to come. Among these are included illustrations of 10 of the principal buildings to be erected for the World's Fair, at Chicago, in 1893.

The Peerless Atlas has as Large and Fine Maps as are found in $5.00 and $10.00 Atlases.

By the reference index, counties and county-seats may be readily found on the maps.
The maps are handsomely colored, most of them in six colors.
It contains colored county maps of all the states and territories.
Shows all countries on the face of the earth.
Has the latest railroad maps, and rivers and lakes are accurately located.
The large cities of the world are on the maps.
The important towns and most of the villages of the United States are on the maps.
It gives a classified list of all nations of the earth, with form of government, geographical location, size and population.
Population of each state in the Union for the past fifty years.
A condensed history of each state.
Miles of railroad in each state.
The peculiarities of soil and climate, together with the chief productions, principal industries and wealth of each state.
The educational and religious interests of each state.
List of all the Presidents of the United States.
The popular and electoral votes for president in 1880, 1884 and 1888, by states.
The agricultural productions of the United States.
The mineral products of the United States.
Homestead laws and civil service rules.
Statistics of immigration into the United States, 1820 to 1891.
Public debt of the United States for the past 100 years.
Commercial failures in the United States for 1889 and 1890.
Indebtedness of the world, with per cent of increase or decrease for 1880 and 1890.
Gold and silver statistics of the United States.
Interest laws and statutes of limitations for each state and territory.
Exports of breadstuff and petroleum for 1889, 1890 and 1891.
Number and value of farm animals in the United States.
The cultivable area of the United States as compared with increase of population.
Postal information, with rates.
And much other information that should be in all homes, stores and offices.

It contains a General Description of the World, giving its physical features—form, density, temperature, motion, the seasons, climatic conditions, winds and currents; distribution of land and water; heights of mountains and lengths of rivers; races of people and their religions; a historical chapter on polar explorations; also the most complete list of nations ever published, giving their geographical location, area, population and form of government. Every school boy and girl, as well as college student, will find it an invaluable aid in the study of geography in all its phases, and parents should not fail to provide their children with it, and thus place in their hands a potent and comprehensive educational aid, supplementing and assisting the work of the school.

Thomas G. Newman & Son, 199 Randolph St., Chicago, Ills.

THE AMERICAN BEE JOURNAL
CIRCULATES
ALL OVER THE WORLD
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AFRICA
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THOS. G. NEWMAN & SON,
CHICAGO, ILL.

ONE DOLLAR PER YEAR.

Club Rates,—Two copies, **$1.80**; 3 copies, **$2.50**; 4 copies, **$3.20**; 5 copies, **$3.75.** Mailed to any addresses.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXIX. Jan. 15, 1892. No. 3.

Editorial Buzzings.

Not Yet the "race unto the swift;"
  Not yet the "battle to the strong;"
But for the world a grand uplift,
  To trembling right, from powerful wrong.

Not yet all glory to the bold;
  Not yet a war with God and fate;
But stop and read this legend old—
  "They also serve, who stand and wait."

Let it be Remembered, says Julia Allyn, that the more bees there are on farms, the greater will be the product of the farms; for the bees distribute pollen and fertilize flowers more thoroughly than they can otherwise be fertilized.

The Indiana State Convention was held at Indianapolis last Friday and Saturday. We shall give a report of the proceedings as soon as they come to hand.

Spraying fruit trees when *not* in bloom is no doubt a very desirable thing. Last week, on page 39, we noted the action of the London authorities on American apples. They were in error as to the effect of spraying apple trees with London purple to prevent ravages of the codling moth or apple worm. This is well illustrated by the experience of Mr. Lupton, of Virginia, as stated in a recent issue of *Insect Life.* The work of spraying was undertaken in Mr. Lupton's orchard, but was discontinued when less than one-third of the trees had been sprayed. From these trees 1,000 barrels of apples, nearly free from worms, were gathered; while from the remaining two-thirds of the orchard, only 883 barrels of sound fruit were obtained; quite one-fifth of the apples from the unsprayed trees being wormy, and unfit for use. Mr. Lupton estimates that his returns from the orchard would have been increased $2,500, had all the trees been sprayed.

We are sorry to learn that the Rev. S. Roese is quite ill with "chills and fever," accompanied with *La Grippe.* In fact, the indispositions are so general, that it is quite difficult to state who are among those in perfect health. The present "cold snap" will probably stop for a time the fearful ravages of that Russian plague.

The *Canadian Bee Journal* says farming for years has not paid as well in proportion to the amount invested as bee-keeping. That may be true in some localities, but in others the opposite is true. North America is a large continent, and its climate and atmospheric conditions are varied. While some few report large crops of honey, the great majority reported almost an entire failure.

If Bees were not of great value they would not have been provided with the sting.—*Iowa Homestead.*

The Third annual meeting of the Minnesota bee-keepers will be held at Owatonna, Jan. 20 and 21, 1892. A cordial invitation is extended to all bee-keepers of Minnesota and adjoining States to attend this meeting. Free entertainment is offered by the citizens of Owatonna. To obtain reduced railroad fare, take a receipt from your ticket agent when purchasing tickets.

In the programme we find the following, after the reading of the minutes of the last meeting, and general preliminary business:

Essay by Wm. Urie.—How to Rear the Most Prolific and Profitable Queens.

President J. P. West's annual address.

Essay by C. C. Aldrich.—The Best Way to Market Honey.

What Shall We do for the World's Fair? Discussion, led by Wm. Urie.

Union meeting with the State Horticultural Society.

Essay by E. R. Pond.—Benefits of Bees to Horticlturists.

Essay by B. Taylor.—Fall Care and Wintering of Bees, and Why I Did Not Buy a Carniolan Queen.

Essay by Eugene Secor, of Iowa.—How to Have a Successful Bee-Keepers' Convention.

Essay by C. Theilmann.—How to Get the Most Comb-Honey Per Colony.

Programmes may be obtained of Wm. Danforth, Secretary, Red Wing, Minn.

We hope there will be a large attendance, and that the meeting will be a very profitable one.

The Societies which met with the North American Bee-Keepers' Association were the following:

The New York State Bee-Keepers' Association met and elected the following officers: President, I. L. Scofield, Chenango Bridge; Vice-President, W. E. Clark, Oriskany; Secretary, G. H. Knickerbocker, Pine Plains: Treasurer, G. M. Doolittle, Borodino.

The Eastern New York Bee-Keepers' Association elected as officers: President, Thomas Pierce, Gansevoort; Vice-Presidents, H. W. Garrett, Coeyman's Hollow, Sol. Vrooman, Hartford; Secretary and Treasurer, W. S. Ward, Fuller's Station; Assistant Secretary, E. W. Philo, Half Moon.

Ohio.—The State Convention is to be held in Cincinnati next month, and we hope that there will be a large attendance. Concerning the arrangements, Mr. Muth writes as follows:

> The Ohio State Bee-Keepers' Association will meet at the West Cincinnati Turner Hall, on Feb. 10, 1892, at 10 a.m., and will continue until Friday, Feb. 12. I shall make the best arrangements I can for reduced fares with the railroads leading to our city, and also with a number of hotels for reduced rates. I will report at the beginning of next week. I have invited a number of bee-keepers in Kentucky and Indiana, to lend us their aid, and I now give a hearty invitation to every lover of the pursuit to meet with us. We shall endeavor to make the time for our friends as pleasant in Cincinnati as we know how. I know that this is a short notice, but other business required my absence from home most of the time during the Fall and Winter, and I had to leave the burden of arrangements to my friend, Mr. Morris, the Secretary of the association. CHAS. F. MUTH.
>
> Cincinnati, O., Jan. 4, 1892.

Here is an item which is now going "the rounds of the press," but needs confirmation:

> The Reading, Pa., *Hustler* is responsible for the following: There was found recently near Sand Lake, by Eugene Trumper, a swarm of bees which were working in the open air and doing finely. They had nearly 4 square feet of comb, which was suspended from a 5-inch pole, about 4 feet from the ground. It was something unusual for bees to work from under cover, and has excited considerable curiosity.

A Bee-Hive grocery is the latest sensation in East Saginaw, Mich. It is kept by John Rey, and the Saginaw *Globe* says that "Mr. Rey carries a large stock of staple and fancy groceries, and furnishes honey at wholesale and retail." It is a sweet place, of course.

Now is the time to join the National Bee-Keepers' Union. Send to this office for the necessary Blanks.

A Smart Scribbler for the press gets off the following in a late issue of the Boston *Transcript:*

> Oh, please don't hold up the bee as a pattern. What of it, if he does improve each shining hour? A shining hour doesn't call for improvement. You never heard of a bee improving a dull hour, did you? When the "little humbug" does, send us word, and then we may join the admirers of the bee.

The writer of this item is so *sharp* that it is wonder he did not *cut* himself!

He should have *improved* the opportunity to *improve* his time by "turning to profitable account" the noble example of industry presented by "the little busy bee." That certainly would have been "improving a dull hour." Let him look at that pattern—and not call the bee a "little humbug" again, until he can appreciate the world-wide reputation of the bee, for habits of industry.

◆

That Foolish Scare in London, mentioned on page 39, of last week's Bee Journal, about American apples, is having its effect. Last Saturday the following was found among the telegraphic dispatches from New York to the daily papers throughout the country:

> Poisoned Apples.—A report that has done the foreign apple trade of America great injury within the past few weeks is the alarm started by the *Horticultural Times* to the effect that American apples are poisonous, owing to the limbs of the trees being syringed with poisonous solutions to destroy the numerous enemies of the apple. It asserts that the poisons used upon the apple trees are absorbed into the fruit, and even in some cases a thin coating of it is left on the skin.
>
> Whether there is any truth in this statement, or whether it is "trick of trade" used to the detriment of the apple trade of the United States has not yet been determined.

Of course it is only "a trick of trade." The Department of Agriculture officially investigated the matter, as stated on page 581, and decided that it would take over a ton of fruit sprayed 8 times with the Bordeaux mixture to furnish a single poisonous dose.

Then, again, the spraying is done just as the fruit forms, and kills the larvæ of the curculio and codling moth before they eat into the apples! Then the rains come and wash off both the dead insects and the poison long before the apples are ripe, so that none remains to affect the consumer, even in the slightest degree.

But the injury is done, and the foreign apple trade will suffer for a time—just as the honey trade has suffered by the frequent repetition of the villainous "Wiley lie" during the past dozen years.

◆

Honey-Dew is said to have killed some bees this winter where it was their only dependence for Winter food, but the following letter shows that "no bad results" have followed from its use:

> My bees are wintering nicely. I was somewhat uneasy about them on account of their stores being honey-dew. They have frequent flights, and I can see no bad results from the food. The white clover is nice and green, and promises an early Spring. We have not seen a snow flake here this Winter, but, of course, Winter is not over yet. Am I right when I understand that any person paying $10 can become a life member of the North American Bee-Keepers' Association? I have been told that, and I want to know if it is so.
>
> C. K. Reading.
>
> Nashville, Tenn., Jan. 2, 1892.

Yes. Send $10 to Ernest R. Root, Medina, O., and he will record you as a life member of the North American Bee-Keepers' Association.

◆

Winter Problem in bee-keeping; by G. R. Pierce, of Iowa, who has had 25 years' experience in bee-keeping, and for the past 5 years has devoted all his time and energies to the pursuit. Price, 50 cents. For sale at this office.

◆

Get a Binder, and always have your Bee Journals ready for reference. We will mail you one for 50 cents.

The Dying Year in Australia.

E. PEDLEY.

Not in the Winter of life he dies.
Chilled, and snowy, and old ;
In the glory of Summer the Old Year dies,
When the midnight chime is tolled.

Not in the sky is a hint of death—
A sky of infinite blue—
Nor is there a sigh in the breezy breath
That is playing the leaflets through.

The cattle and birds to the shade retreat,
In drowsy, still delight ;
And flowers have scented the noonday heat ;
Yet the Old Year dies to-night.

And the air is filled with a sound of BEES.
The humming of Summer flies ;
And there's joy in the sound of the rustling trees ;
Yet to-night the Old Year dies.

Not in the Winter of life he dies,
But in his Summer's prime ;
His labors end, he stricken dies,
And swells the ranks of Time.

Queries and Replies.

Dead-Air Spaces in Hives.

QUERY 801.—Are dead-air spaces in hives an advantage ?—Iowa.

Yes.—G. M. DOOLITTLE.

I am not sure.—C. C. MILLER.

My observation says, Yes.—M. MAHIN.

I never tried them.—MRS. L. HARRISON.

I really do not know.—J. M. HAMBAUGH.

Yes ; if in the proper place.—H. D. CUTTING.

Yes, in my opinion they are.—J. E. POND.

The objections more than balance the advantages.—C. H. DIBBERN.

I think their disadvantage outweighs any advantage.—A. J. COOK.

Yes, an advantage, but a greater disadvantage.—R. L. TAYLOR.

They may be, but I never thought so *hard* enough to try. Too expensive.—EUGENE SECOR.

Years ago I used to think they were ; now I have my doubts about their utility.—J. P. H. BROWN.

They are of no advantage to the bees, but are quite essential in the manipulation of hives and frames.—G. L. TINKER.

No, nothing perceptible. I have tried hundreds beside of solid walls. Do not waste money and time on them.—JAMES HEDDON.

I believe they are. I have had one season's experience with chaff hives, and like them much. Every one so protected did better than those not protected.—A. B. MASON.

Not in my locality. They are a "dead" failure with me. I have tried them, and have seen them tried. In the Winter of 1886, Dr. Keene, who lived just one mile from me, had 100 colonies in dead-air space hives ; he lost all but 18 of them. My bees wintered without any loss. They were in single-walled hives, and the winter sunny days warmed the bees so that they could get at their stores.—G. W. DEMAREE.

Hollow walls, with no packing, have their advocates ; and it is asked if these dead-air spaces are not equally as good non-conductors of heat as those filled with chaff. They are not. In the first place, the air is not "dead"—it is conssantly moving. The air next to the inside wall becomes warm and rises ; that next the outer wall cools and settles ; thus there is a constant circulation that robs the inner wall of its heat.—W. Z. HUTCHINSON.

This is a disputed point, and one which experience alone can decide.—THE EDITOR.

The Convention Hand-Book is very convenient at Bee-Conventions. It contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee-Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with Subjects for Discussion. In addition to this, there are about 50 blank pages, to make notes upon, or to write out questions, as they may come to mind. They are nicely bound in cloth, and are of the right size for the pocket. We will present a copy for one new subscription to the BEE JOURNAL (with $1.00 to pay for the same), or 2 subscribers to the HOME JOURNAL may be sent instead of one for the BEE JOURNAL.

Topics of Interest.

North American Bee-Keepers' Association.

W. Z. HUTCHINSON.

[Continued from page 50.]

Next came an essay by Dr. C. C. Miller, who was kept at home by *La Grippe*. His essay was read by E. R. Root, as follows, on

Can We Settle on Two Sizes of Sections as Standard?

I don't know. If it can be made to appear that it would be for the general good, I have faith enough to believe that some concessions would be made for the sake of unanimity.

But what good would it do? Can I get any more honey by using a section of the same size as others? Hardly. Can I find more ready sale by having a standard size? The consumer hardly cares whether the section he buys is 4¼x4¼ or 5x3⅝. He may, however, want a smaller section than some other customer wants, and that is just so much of an argument in favor of having a variety of sizes. But I think it may be easier to sell at wholesale if my sections are of a standard size, and the wholesale purchaser knows, without seeing them, just what my sections are as to size. So that I do not see that it makes any special difference, considering merely the matter of sale.

Looking at it from another point of view, can we buy our supplies any cheaper if we settle upon a standard size? I hardly need to answer the question. Try getting an odd size of any article made. You may be bluntly told: "We do not make that size," or, "We can make it for you, but will have to charge you more than for a regular size."

I have taken the liberty to write to three manufacturers of sections, and I think I can do no better than to here submit their replies.

Watertown, Wis., Nov. 30, 1891.

Dr. C. C. Miller, Marengo, Ills.

Dear Sir:—In reply to your favor of Nov. 26, we think there should be but one size of section, viz.: 4¼x4¼. As to width of the section, it is difficult to say. Nearly all of our foreign orders are for 2-inch sections, and domestic orders vary very much; however, 7 to the foot, 1¾ and 1⅞, seem to be the favorites. Of course a manufacturer would prefer sections to be but 1¾ inches wide, or 7 to the foot. We do not see why this section should be introduced, except it may be to better accommodate the inside measurement of a different hive. But, if sections could be brought to a standard width of 1¾ or 1⅞, and size 4¼x4¼, we think it would be much better for consumers, for manufacturers, and also for dealers in honey.

You ask what we would recommend if *three* sizes *only* were used. We would say 7 to the foot, 1⅞ and 2 inch, all to be 4¼x4¼.

As to advising what would be best for *one* size, if we consulted our own convenience perhaps we should say 7 to the foot, but we stand ready at all times to make any sizes wanted.

G. B. Lewis Co.

Jamestown, N. Y., Nov. 28, 1891.

Dr. C. C. Miller, Marengo, Ills.

Dear Sir:—We are in receipt of yours of Nov. 26, and will answer your inquiries, in regard to sections, as well as we can.

We judge that the percentage of odd-sized sections; that is, those other than 4¼x4¼, ranges from 10 to 15 per cent.

We usually keep in stock 5x5, 5x5¼, 5⅝x4¼, 5¼x6¼, 4¼x4½, 5¼x5¼, and 6x6, of the odd sizes.

It would be a great advantage to manufacturers and dealers, if only one or two sizes were used, as the cost of changing machinery, and the waste in manufacturing one or more thousand of odd-sized sections is in excess of the price we get, over and above that for the regular size.

In case three sizes of sections were only used, we should think the 4¼x4¼, 5¼x6¼, and the 5x5¼ would be the best three sizes; if two sizes, the 4¼x4¼ and the 5x5¼, and if only one, of course the 4¼x4¼.

It is quite impossible for us to tell you the dimensions of the different sizes of sections that we make. There are a very large number, which would require our going over all of our orders for a year to get at the various sizes.

As to the difference in price between those that are nearest the "standard," and those that are unusual, we make a difference in accordance with the quantity ordered.

Of course, if a person wants one or two thousand odd sized sections, we have to charge higher than if he wanted, say

50,000 sections, and one or two thousands of odd sizes.

We frequently have orders, especially from foreign countries, of several hundred thousands of the 4¼x4¼ size, with, perhaps, 5 per cent. of odd sizes, and in such cases we endeavor to make the price in accordance with the actual amount of the difference in timber.

There is no question but what it is desirable to only have one or two sizes of sections used.

As to the possibility of it, we do not think it can be done, as long as there are so many bee-keepers who use odd sizes of sections. They will continue to do so, if they can get any of the manufacturers to make them.

We see no good reason why the manufacturer should not do so, though we think manufacturers have made a mistake in reducing the price so much, on odd sizes.

We may be as much to blame as others, but the reason of our moderate charges, on odd sizes, is owing to competition.

The W. T. Falconer Mfg. Co.

It may be said we are not to consider the interests of manufacturers, but of bee-keepers. Allow me to say that when you make production easier for them, I am quite sure you make cost less to us. There should be a mutual understanding, and the manufacturer should, as he surely does, study the wants of the bee-keeper, and the bee-keeper should study the convenience of the manufacturer. Suppose you say to a manufacturer, "We are quite divided as to our views of the right size of section, and we want you to keep in stock ten different sizes," and I believe we are really doing just that thing now. He will do it, just because we demand it, but he could keep on hand a much larger stock, and could manufacture at less cost if you demand only one or two sizes.

Please set it down as a fixed fact, that when you consult the convenience of the manufacturer, and make his work more profitable, part of that profit is bound to come back into your own pocket.

So I am of the opinion that it would be a good thing for this society to say, "We believe it would be profitable for bee-keepers, so far as possible, to give the preference to the one or two sizes agreed upon by us." Of course that would leave every man free to use the size he likes best, but it would give just so much of an impulse in the right direction.

The question assigned to me by the Secretary does not touch upon the question as to what is the best size for a standard, but I crave your indulgence while I say just a little about that. The 4¼x4¼ is already so nearly a standard size that it is very likely to gain that place without any aid from this society, but proper action may hasten it. But, suppose we agree upon that size, what is to be the width? We have 2 inches, and, then by going down by sixteenths, all sizes to perhaps 1½.

The grocers, or at least a good many of them, are anxious that sections shall average less than a pound each, and I think I am not mistaken when I say that some of them want them to weigh less than a pound each, so that they can buy them by actual weight, and then sell them, without weighing, for one pound each. Now, I would like to see a standard adopted that would be so much less than a pound that they could not be sold for a pound each. I do not want to be a party to cheating, and I am afraid I have been. As a general rule, 1 15/16 will run less than a pound each, but 1⅞ would sooner be detected as a thief if it attempted to pass itself off for a pound. So, it would be well not to have our standard more than 1⅞, and perhaps it should be no less. There are other reasons why 1⅞ is a good size, among which is the reason that such a size can be conveniently used in most of the supers in use, and allow of wedging up. Possibly, 1¾ would be still better. In favor of these two sizes is the fact that they are already favorites. If this convention agrees upon one or two standard sizes of sections, and does something toward grading comb-honey, it will not have met in vain.

C. C. Miller.

H. Segelken—We want a section that weighs less than a pound. We would not object to a section that weighs a pound, but it must not weigh more.

S. Corneil—I think our oblong section (higher than wide) is the most handsome. It also appears to contain more honey than a square section.

H. R. Wright—A thin, large section is the one for my market. A bee-keeper should furnish his product in such shape as will suit his customers—the commission men. If the commission men buys and sells by weight, that is all right, and if the retailer sells by the piece, that is *his* business. Every bee-keeper ought to put up his product in that manner that will bring him the most money, regardless of what the third or fourth purchaser may do with it. As Mr. Corneil has said, the oblong section is the most pleasant to the eye, and looks like containing more honey.

Next came a discussion on the subject of

The Grading of Honey.

W. Z. Hutchinson said that the Northwestern Association of bee-keepers had adopted a set of rules for grading honey, and had requested him to bring these rules to the notice of the North American Society for criticism and discussion. He then read the rules, which are as follows:

First Grade.—All sections to be well filled; combs straight, of even thickness, and firmly attached to all four sides; both wood and comb to be unsoiled by travel-stain, or otherwise; all the cells sealed, and the honey of uniform color.

Second Grade.—All sections well filled, but with combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel-stain, or otherwise, and the honey of uniform color.

Third Grade.—Sections with wood or comb, or both, travel-stained or otherwise much soiled, and such as are less than three-fourths filled with honey, whether sealed or unsealed; and crates containing two or more colors.

O. L. Hershiser—I notice that in the last grade there is a place for sections that are "much soiled," but where is the place for those that are only slightly soiled?

C. P. Dadant—That omission was noticed at Chicago, after the rules had been adopted, but it was not thought best to open up the discussion again.

W. Z. Hutchinson—We ought to have something better than first grade. The great bulk of honey should go into the first grade, but the requirements of the first grade of the Chicago rules are too exacting for that. We ought to have a different name for that grade. Call it "fancy," or something of that sort, then call the second First, etc.

J. E. Crane, E. R. Root and C. P. Dadant all agreed with the views expressed by W. Z. Hutchinson, except that Mr. Crane thought we ought to have a greater number of grades.

N. D. West—I think it will be well-nigh impossible to get up a grading that will suit all persons and places.

W. E. Clark—We cannot offord to have very many grades. I think three grades are enough.

E. R. Root—It seems to me that something ought to be said about color. The first grade ought to be white.

W. Z. Hutchinson—That point was the one that gave the Chicago folks the most trouble, some taking the view expressed by Bro. Root, while others contended that there was first-class buckwheat honey just as truly as there was white clover or basswood. The same was equally true of golden-rod, heart's-ease or any colored honey.

Upon motion of E. R. Root, a committee of seven, including the commission men present, was appointed to formulate a set of rules for grading honey. The members of the committee were: G. M. Doolittle, P. H. Elwood, J. E. Crane, Henry Segelken, H. R. Wright, Mr. McKullough, and Mr. Killmer, of Thurber, Whyland & Co.

Next was brought up the question of

What Ought the Government to Do in Apiculture?

O. L. Hershiser—As the placing of a bounty on sugar has lowered it in price, and the price of honey is affected by the price of sugar, the producer of honey ought to have a bounty on honey.

R. McKnight—Our Government grants our bee-keepers' society $500 annually.

On motion of P. H. Elwood, it was voted that the Department of Agriculture be requested to add a department devoted to apiculture, and that this department report to bee-keepers through the North American Bee-Keepers' Association; also that an appropriation be asked for to enable the North American Bee-Keepers' Association to meet the expenses of publishing a report of its proceedings. To look after this matter, the following committee was appointed: P. H. Elwood, O. L. Hershiser, and J. E. Hetherington.

Next came an essay by R. F. Holtermann, entitled:

Some Facts Not Generally Known About Rendering Beeswax.

[This was published last week on page 50.—Ed.]

E. R. Root—What is meant by a high temperature and long heat?

R. F. Holtermann—I am not scientific.

C. P. Dadant—I would not like to keep wax as hot as boiling water for a long time.

E. R. Root—We cannot keep it much over 180 for a long time.

S. Corneil—I saw some of the editors were talking about boiling wax, and I wanted to see if they knew what they were talking about. Beeswax does not boil until it reaches about 600°.

E. R. Root—What we meant by this was at the boiling point for water—212°.

C. P. Dadant—If bee-keepers will keep their wax away from iron, and melt it over water, they will have very little dark wax. For cappings and light combs the solar wax extractor is all right. With old combs the skins of the larvæ soak up the wax.

S. Corneil—Make a solar extractor with double walls and double glass, and when the rays of the sun get in then they are "trapped," and the heat will rise to *above* that of boiling water.

C. P. Dadant—I do not wish to be understood as saying that heat alone injures wax, but heating it over boiling water does.

Foul-Brood.

J. M. Hambaugh—Are we in need of any more legislation upon foul-brood?

E. R. Root—I think that foul-brood is diminishing; hence, I think no more legislation is needed.

S. Corneil—If you had a law, as we have in Canada, compelling each one to report the existence of foul-brood, I think you would be surprised at the amount of it.

Foundation vs. Empty Comb in Sections.

The question was asked, "What is the value of foundation as compared with empty combs for use in the sections?"

Answer—Except as a "bait," foundation is preferable to drawn comb.

Passage-ways.

Query — Are passage-ways needed through the combs; if so, how shall they be kept open?

J. E. Hetherington—We take refuse tin and cut it into strips about ⅜ of an inch in width, and roll it up into small tubes. These tubes are pressed into the comb, the pieces of comb punched out, and the tube left in. The bees do not fill the tube.

The Quinby Hive and Frame.

A member asked the size of the Quinby frame.

J. E. Hetherington—I use the old Quinby. It is 11x17.

How many in a hive?

J. E. Hetherington—Oh, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 20 or 30, as the case may be. That is the beauty of the Quinby hive, it can be made any size.

The Treasurer, E. R. Root, read his report, which was as follows:

RECEIPTS.

Cash from former Treasurer	$59.75
Interest on average monthly balance	5.38

LIFE MEMBERSHIP FEES.

A. I. Root	10.00
E. R. Root	10.00
J. T. Calvert	10.00
C. P. Dadant & Son	20 00
Dr. C. C. Miller	10.00
Chas. F. Muth	10.00
A. N. Draper	10.00
Mrs. L. Harrison	10.00
Eugene Secor	10.00

AFFILIATION FEES.

Ontario Bee-Keepers' Association	5.00
Colorato State " "	5.00
Connecticut " " "	5.00

ANNUAL DUES.

J. S. Barb	1.00
E. Calvert	1.00
F. A. Hayes	1.00
Membership Fees at Albany	84.00
Total	$267.13

DISBURSEMENTS.

To Rev. L. L. Langstroth	$50.00
For Incorporation	3.00
For 25 Medals, dies and cases	77.75
900 Programmes	6.00
Stationery and Postage (C. P. Dadant)	10.00
Badges	12.00
Expenses of Thomas Pierce arranging Hotel Rates	2.00
W. Z. Hutchinson, reporting Proceedings at Albany	20.00
Janitor's fee at Albany	5.00
Total	$185.75

RECAPITULATION.

Total Receipts	$267.13
Total Expenditures	185.75
Cash on hand	$81.38

The report was accepted and approved.

A vote of thanks was given to Secretary Dadant for his very efficient labors in behalf of the association.

The Secretary then read a letter from Mr. Frank Benton. Upon motion of P. H. Elwood, Mrs. F. Benton was made a member of the society.

[This letter was published on page 16.—Ed.]

The Grading of Comb-Honey.

The report of the committee on the grading of comb-honey is as follows:

Honey shall be graded in two grades, the first to be known in the trade as "fancy," or "fancy white," and to be marked "A." It shall be composed of well-filled sections of light-colored honey. One face of each section shall be perfect in appearance, fully sealed, except the line of cells touching the wood. The other side of the section shall be perfect in color and sealing, or nearly so.

The second grade shall be known in the trade as fair to good, white, and be marked "C," and shall be packed to meet the requirements of those desiring a good honey, but who care little for outside appearance. It shall be composed of honey thrown out of the first grade, irregular and travel-stained combs, sections not perfectly filled, but yet having but little unsealed honey.

White honey, third grade, mixed with inferior honey, including buckwheat and Fall flowers, shall be graded by itself, and marked "M." We desire that combs so badly stained as to have the appearance of saffron, be thrown into this grade.

Buckwheat honey shall be packed by itself, and shall be marked "B."

Those bee-keepers sending to market boxes known as "pieces," shall put upon them a private mark of their own. This should also apply to honey-dew and other kinds not falling in regular grades.

The chairman of the committee reported that they had labored long and faithfully, and found it well-nigh impossible to agree. This report was offered near the close of the last session, when nearly three-fourths of the members had gone home, and those present were in a hurry to have "the thing over with," and the report was accepted and adopted without comment, and I venture the opinion that the rules were not the sentiment of the majority of the members of the convention.

What Constitutes an Italian Bee?

The committee, on a standard of excellence for Italian bees, reported as follows:

Italian bees must adhere to the combs when properly handled, and not cluster about or rush around and fall to the ground. They must have three bands, of a color ranging from golden yellow to leather color. They must be quiet when well handled, and in time of scarcity must place their honey in a compact shape.

Schedule of marking, in a schedule of 100 points:

Comb building	10.
Honey-gathering qualities	40.
Prolificness	20.
Wintering	15.
Gentleness	10.
Color	5.

The report was accepted and adopted.

The Committee on Exhibits reported as follows:

A fine sample of comb-honey in cartons, and extracted-honey in glass jars, by G. H. Knickerbocker.

Exhibit of honey by McKullock & Co., of various styles and qualities, also photographs of different honey exhibits.

S. Corneil exhibited a curiously-arranged straw hive, with combs pointing from corner to corner.

Hive and clamp, queen-excluder and queen-cages, by N. D. West. We would especially note his exhibit of beautiful and practical queen-cell protectors.

The Hasting's feeder and bee-escapes, said to work nicely, were also on exhibit, but the committee has no knowledge of either.

Dadant's foundation with natural base, both heavy and light, by C. P. Dadant, of Illinois; also, "Langstroth on the Honey Bee," and samples of bee veiling, which were very nice.

J. Van Deusen exhibited the nice flat-bottomed foundation, both heavy and light.

Chaff hives, complete, with drone and queen-trap, were exhibited by W. W. Cary; also bee feeders and comb-foundation.

We also note in Mr. Cary's exhibit the Porter bee-escape and Alley drone-trap. All of the foundation in these exhibits was very nice.

E. R. Root exhibited a dovetailed hive with Hoffman frames.

Samples of Dadant foundation drawn out in sections was exhibited from the Ontario Agricultural and Experimental Union, by Mr. R. F. Holtermann, of Brantford, Canada, showing that it was not wise to use comb-foundation in sections heavier than 12 feet to the pound.

E. L. Goold & Co., of Ontario, exhibited a model of a two-frame reversible extractor.

An improved Quinby smoker was exhibited by W. E. Clark.

A 4-frame honey-extractor was exhibited by W. L. Coggshall, and was said to be very practical.

W. Connor exhibited a deep frame hive, contracted, on the principle that a deep frame will winter the bees better than a shallow one.

Thos. Pierce,
G. M. Doolittle,
R. H. Holmes.

The Committee on Resolutions reported as follows:

Whereas, The all-wise Father has seen fit to remove by death our valued friend, Geo. H. Ashby, a prominent and useful member of this association,

Resolved, That we deplore his loss, and be it further

Resolved, That we extend our sympathy to his wife and other members of his family.
G. H. Knickerbocker,
E. R. Root.

The convention then adjourned to meet next year in the city of Washington, D. C., at the call of the Executive Committee.

W. Z. Hutchinson, *Sec.*

Reason vs. Instinct.

J. S. BRENDLE.

The question of the bee's rationality has been ably discussed, *pro* and *con*, in the columns of the Bee Journal, and I have read with the keenest interest all that has been published. I am not one of those who believe that bees are endowed with reason, and will here briefly state my views on the subject.

Reason is man's distinctive attribute, which being superadded to those that he shares with the animals below him in the scale of excellence, constitutes him a distinct class. Without reason, man would be but an animal like the rest, destitute of all motives of action except the promptings of appetite and self-propagation.

The animal is governed by instinct, and by instinct I understand reflected reason, or the impress of the Creator's purpose upon the functions of a creature not endowed with free-will. Instinct may also be defined as a kind or quality of mentality whose operations are confined to the mere conciousness of physical wants and a perception of the best and readiest means of satisfying them. It is always true, implying absolute uniformity of action as long as the environment remains the same, and illustrating the infinite wisdom of that Being whose purpose it reflects. In the domain of instinct, self-determination is inconceivable, and self-improvement impossible. The animal cannot rise above its natural condition nor sink below it, simply because it is subject to a law that holds it inevitably to a fixed course. That law is instinct.

Under the benign sway of reason, there is freedom of will as a sense of the moral quality of every action, and intellectual advancement becomes an absolute necessity. Progress is both the evidence and the result of rational activity.

In the light of these truths it is clear that the bee is governed entirely by instinct. Man, endowed with reason, is constantly expanding the powers within him, and ever enlarging the sphere of his usefulness; while the bee has remained essentially the same since its creation, and will always remain the same until the day of doom. Instinct has ever guided and *will* ever guide the latter in an unchanging orbit of existence; while reason has gradually elevated the former to a plane of morality and civilization, undreamed of by the earlier generations of the race, and will continue to exalt him throughout endless ages yet to come.

Although adumbrations of rationality, or so-called mental operations analogous to ratiocination, are manifest in many animals showing that their functions are founded on divine purpose, there is only one being in the natural world that enjoys the gift of reason, and that is man. The numerous instances in which bees and other insects and animals have been known to exhibit something closely akin to rationality, prove nothing except that instinct is always equal to the demands of certain complications of environment. Reason would enable the bee to escape from the tyranny of circumstances to which instinct holds it subject, and to preserve its life where instinct impels it to self-destruction, as in the case of stinging. Reason would render the bee man's co-ordinate, whereas instinct makes it his servant.

Shaefferstown, Pa.

The Punic Bee Controversy.

E. L. PRATT.

Mr. T. W. Cowan's "error which inadvertently crept in" is, I suppose, pardonable, but there are one or two more errors which Mr. Cowan should be as willing to correct, if it could be shown that he is mistaken, or not posted.

He said that "Mr. Carr had never had or seen a Punic stock in his life." It can be proven that Mr. Carr had a Punic queen, and that the same colony was reported "one of the strongest in his yard," in a letter to Mr. Hewitt. Mr. Carr also wrote another person about Punic bees, in such glowing terms that he wrote quite excitedly for a Punic queen in 1890. This accounts for the editorial reply to "What kind of a bee is the Punic?" When it first states that a Hallamshire bee-keeper says "the Punic bee comes from North Africa," then Mr. Carr goes on and states "it is dark in color, and from our limited experience of it, is a good worker, and a prolific sort."

I admit that Mr. Cowan's oversight may have been unintentional; if it was not he would not have worded his statement as he did. His "explanation" on page 811, to all who are in possession of the facts, is merely an attempted evasion.

I have before me a copy of the last *Journal of Horticulture*, which says that Mr. Cowan's statement, which appeared in the issue of Nov. 19, "was inserted under a misapprehension," and that the statement was not according to facts. It goes on and gives the facts, and then states "it will be seen that Punic bees are twice mentioned there, and that a reply is given, founded on 'experience';" yet in the *British Bee Journal* for Aug. 27, 1891, on page 381, the same editors, in reply to "Inquirer," say: "We know nothing about the so-called Punic bees, and can give no information as to their value."

In reference to Mr. Cowan's article on "Tunisian bees," in Dec. 17 *British Bee Journal*, I wish to state that the Mr. W. F. Kirbey is the curator of the British Museum, Natural History Department, Division Hymenoptera. We have his letters to prove that they had no bees in the Museum from North Africa, except Egypt, which are yellow banded, nor have they any so dark as ebony.

Mr. Cowan professes to recognize them as native bees of Tunis in their dead and dry state, yet when Lowmaster asked if they came from Tunis, he could not tell him, although he had seen Punic bees alive at the Royal Lancaster Show. He also says that he is going to Tunis to clear matters up relating to them. If he was acquainted with the bees, why does he have to go there to get *acquainted*.

In the *British Bee Journal* for April 15, 1885, page 133, is where he gets his information about the 40 colonies belonging to a French gentleman, the Kssar-Tyre Apiary. Some of the queens showed *yellow*. The article is written by Mr. Frank Benton. There are no references in March 20.

He says the bees of Tunis, Algeria, Morocco, and Minorca are the same, yet he says the bees of Tunis show yellow, which the others do not. If they show *yellow*, how can they be the *same?*

Whether it pleases Mr. Cowan or not to call these ebony-colored bees Punics, they are now in America on trial. They are entirely different in both color and characteristics from any he ever yet imported. They are proving themselves up to what has been claimed for them, and will doubtless find their way into many apiaries another season.

What American bee-keepers are after is a dollar-and-cent bee, and it makes no difference in their value, whether they be called Punic or Tunic. "A rose by any other name would smell as sweet."

I will now rest my case, and let experience with the Punic bees settle their value in America.

Beverly, Mass.

[This controversy is very tiresome. Here is a sample: Mr. Carr is said to have never "had or seen a Punic *stock* in his life," and in the second paragraph of the foregoing, it is stated that "it can be proven that Mr. Carr had a Punic *queen*." Both may be literally true—but why does not Mr. Carr *settle it*, by making a statement in his paper—the *Record?* What good will be done by discussing it in a periodical 4,000 miles away from one disputant, and 1,000 miles distant from the other? Messrs. Carr and Hewitt are the principals in this dispute—not Messrs. Cowan and Pratt. Why waste pages on the latter, when the principals could settle it in two or three lines?

When in error, Mr. Cowan has always shown that he gladly makes the *amende honorable*. What possible object could he have for misrepresenting or suppressing facts? He is not interested in the queen trade (or any other trade, for the matter of that), and as the editor of the *British Bee Journal*, and for years chairman of the British Bee-Keepers' Association, he has proved himself just and honorable. Had it been otherwise, it would have been found out long ago by his associates. It is absurd to suppose that he could have any object for concealing anything about Punic bees.

Now, as Mr. Pratt suggests in the last paragraph: "Let experience with the Punic bees settle their value in America," and let all strife and discord about them cease. This is the season for "Peace on Earth, and Good Will to Men." Let us all realize it, and be happy.—Ed.]

Western Wisconsin Bee Notes.

REV. STEPHEN ROESE.

At the opening of the season of 1891, bee-keepers of this section of country looked forward with a hope of a bountiful honey season. White clover seemed to come in season, and quite plenty of it, but it secreted very little nectar, and basswood proved only of short duration—only for 3 or 4 days the busy bees seemed to visit it; after which there was a honey dearth for sometime, until buckwheat came into blossom, but it seemed to yield no honey. My apiary was located right in the center of about 100 to 125 acres of buckwheat, and I never extracted one pound which I would call buckwheat honey.

Golden-rod and wild aster yielded some honey, but not much, as from 80 colonies I had only 150 pounds of Fall honey, and of this amount a goodly part had to be fed back to those in need, for many colonies did not gather enough to breed on, and, in consequence, breeding went on at a very small scale, especially late breeding, for many colonies left off breeding early in September, except those which had been kept stimulated by feeding. As many bee-keepers in this section of country do not keep up with late improvements, nor keep pace with the spirit of the times in apiculture, the result will be that the mortality among bees this Winter and the coming Spring will be great, for many even leave their bees on the summer stands at the mercy of a Wisconsin Winter.

I harvested a honey crop last season of about 2,600 pounds, and thought, at the close of the honey season, that all colonies were moderately prepared for Winter, but on removing them into the winter repository on Nov. 26, I found that nearly one-fourth had less stores than they ought to have. Frames of honey were given to those in need, as far as they would reach, but quite a number were marked for February feeding.

One hive and about 150 pounds of honey were stolen the last of August, on the first chilly night we had, and the next morning, as soon as the sun came up, quite a commotion and flying of bees was noticed in the yard, and on examination it was found that the double hive was missing, and the bees stolen. Those which could take to their wings, returned to their old stand, and, not finding their home, tried to enter the neighboring hive. Another hive with combs was placed on the stand of the former, in which all returning bees took refuge. Toward 10 o'clock, when the bees in the apiary began to fly, a perfect black stream was noticed in the air, bees coming and going, and on following the stream of bees, I was led to the spot where the bees had been carried during the night, the hives and frames broken up, and the spoil divided among the thieves; and by noon, the spot where the honey had been cut out of the frames, and spilled on the ground, the grass and weeds for about 4 feet square was covered with bees about 3 to 4 inches thick, cleaning off the besmeared, unfortunate bees, and by nightfall hardly a sign of honey could be seen. Fully two-thirds of the colony had returned to the new hive on the old stand, which seemed to be on the evening in a far different mood from what they were in the morning.

I sent immediately to the South for a queen, to be given on its arrival to the unfortunate colony. It arrived in due time, and was placed over the cluster of bees on the frames, but the bees did not seem to care much for their Southern "stepmother," showing no friendship nor any enmity. After three days it was decided to release the new queen, and see what she would do in the way of replenishing the hive with young bees before going into winter quarters. The cage was opened, but before letting her step in, it was thought best to let the unfortunate colony undergo a special examination, and to my surprise I found 3 frames partly filled with newly-laid eggs, as a result of the feeding, for the old queen must have returned, which fact accounted for the bees not caring much for their Southern stepmother: and ere the warm September days passed away, the unfortunate colony had quite recruited up for Winter, and the Southern queen was given to a colony which was queenless, and showed signs of a laying worker.

This makes 13 hives that I have had stolen from year to year, since keeping bees in this locality, and in each case the right ones were spotted as the thieves; but, in the last one stolen, the bees betrayed the thief, in whose yard they were found, in such a manner that he will never forgive me as long as he lives, trying in vain to remove guilt from his shoulders, by telling that he heard his dog bark in the night, and, looking out of the window, saw two men carrying a bee-hive, and heard them afterward, behind his granary, talking in a whisper.

Maiden Rock, Wis., Dec. 3, 1891.

Golden Bees, Extracted Honey, Etc.

W. P. FAYLOR.

That the yellow race of bees has been growing in favor with apiculture the past season, more than ever before, is a matter that has passed logical dispute. Even *Gleanings*, of late, seems to favor the "golden bees."

The best time to breed these beauties is during July and August, when coming drones are exterminated. By keeping "hand-picked" drones in queenless colonies during drouth, and feeding them well, we get a superior type of bees.

PREVENTION OF SWARMING.

In my experience, it is not the largest hive, but the bee-hive that admits the freest circulation of air, that is one of the best preventions for swarming. As soon as the brood-chamber becomes well populated, but before the "bees hang out," put on one or two tiers of sections, and raise the brood-chamber ⅜ of an inch all around. I do this by putting a little piece of lath under each corner of the brood-chamber.

"But hold on," says some one. "My hives are all nailed fast to the bottom-boards." Well, then, knock them loose, and the sooner the better. You can do this much more quickly, and more easily, than to be climbing trees after swarms. Let me here repeat what I said last season, that no one thing will do so much to prevent swarming as to allow the air to whistle under the brood-frames in warm weather, and drive the bees up into the sections. Remember that "An ounce of prevention is worth a pound of cure." But after these precautions, should a colony cast a swarm, return the swarm to the parent hive, and exchange the site of the hive with that or another; or if you wish to do a little more work, hive the swarm in a new hive, and place the section-case, or cases from the old stand, on the new hive, and all is well. This last, though an old method, is practiced by a good many bee-keepers.

EXTRACTED-HONEY.

Honey in the liquid form is slowly, but surely, gaining favor with consumers. Many prefer extracted-honey in its granulated form. Indeed, I like it that way myself.

In regard to vessels for shipping extracted-honey, I may frankly say that the square tin cans come first with me. I could only wish for one improvement on these cans, and that is the opening. It is not much trouble to put honey into these cans; but it is considerable trouble to seal the screw caps, according to the present *modus operandi*. Did I know who manufactured these cans, I would suggest that they make the screw-caps the exact size of the cap to a Mason fruit-jar; then we could fill a can with honey, and seal the same with a rubber ring, the same as we do a can of fruit.

Mt. Auburn, Iowa.

[The idea is a good one. Rubber rings can be obtained of any size. There are two sizes of these screw-caps used on the square cans; the regular one being 1½ inches in diameter, and the extra one is 4 inches. Rubber rings can be obtained for either, or both.—Ed.]

Careless, Slipshod Bee-Keeping.

A. C. BABB.

I have just returned home from a trip across the country, and as I rode along I could see a few bee-hives (box-hives, mostly). Some had 5, some 6, and some 10 hives out in weeds against a rail fence, with a couple of boards laid on the top of the hives to turn the rain off. George E. Britton, of Newmansville, Green County, has 39 colonies in box-hives. He said that he would not have the frame hives, as they were of no account to him. I asked him if he obtained much honey, and he said he had hardly any. If he had his bees in frame hives, and worked them for extracted-honey, he would get on an average 40 pounds to the colony, and that would be 1,560 pounds, which, at 10 cents per pound, would be $156. But by his way of management he does not get $25 from his bees in a year. Most of the bee-keepers do not know how to care for their bees. It seems to me if they did, they would have more of them than they do, and then get more honey; in this country, I mean. If a swarm issues, they will run with a bell, rattling or beating a pan, or something else, to make a noise. They think that this must be done, or the bees will certainly leave. When the swarm is clustered, the keeper calls for a "gum" to put his bees into; he is told that there is one in the smoke-house, that has had soap-grease in. Will that do? Yes, if there is no other! These are facts; I have seen bees in soap-gums where the soap had eaten the wood until the wood was soft. This is a careless, don't-care way of doing business, or else they do not know any better.

Greenville, Tenn., Dec. 18, 1891.

Bee-Keeping in Florida.

JOHN CRAYCRAFT.

On page 659 (1891) Mrs. L. Harrison takes up "Bee-Keeping in Florida," and some other things, on hearsay evidence. I do wish the good lady could spend one Winter with the bee-keepers in Florida. "Our latch string hangs out." She would learn a great deal different from the reports given by visitors that come to the State with their anticipations formed that this country will cure them of all their ills, that it will furnish food and raiment without price, and wealth without effort; and because they do not obtain all these things, they are disappointed!

I would say first, that this country is no "paradise," no more than the one the reader lives in. It is just what you make it—either a pleasure or a disappointment, a profit or a loss.

Mrs. Harrison says "she met a lady who had spent several years in that locality (St. Johns and Indian Rivers), who said that she never saw a place that she could not take a broom-handle and run it down to water, and that clothing left upon the first floor of a house during the night would not be safe to put on in the morning, on account of dampness." We have low lands and swamps along the greater part of the St. Johns River, but back from the river a mile or two the lands are generally high pine lands, and the lady with the broom-handle would have to probe old Mother Earth from 20 to 40 feet deep to reach water. I have been up and down the St. Johns River a great many times, both day and night, on steamers and row boats, and camped out on the banks and islands, and have never found greater dampness than I did crossing the State of Illinois in wagons in the season of 1860, and passed through Peoria (Mrs. Harrison's home) each way, and camped on the river bank there; and more, if I am not mistaken in the reports of the humidity of the atmosphere of the "States," Florida is second in dryness, Minnesota being first.

As to bee-keepers "producing very little comb-honey" on account of dampness, that is all "talk." It is a matter of dollars with us, for I am practically certain that I can produce four pounds of extracted-honey to one of comb-honey on the St. Johns River. Instinct teaches the bee that for the long season of this climate they need not go with that rush to gather their needed stores, hence they are slow on comb-honey, while with the extracted their stores are taken away very closely, and it will drive them to business with a rush that they do not have on comb-honey. This is my experience here, and I think is the great cause of so little comb-honey produced in the South, and not on account of the "dampness."

Mrs. Harrison's advice to her friend not to purchase bees until she knew where she would locate, was good, but with her permission I would say further, not until she had spent a year with the bee-keepers of Florida, and looked at the different localities, learned the sources of honey and their season, and if not a practical and skilled bee-keeper, and a genuine lover of the bee, to positively let them alone until she had learned all these things before venturing to purchase bees and locate in an orange grove, and expect anything short of disappointment!

To those who contemplate coming to Florida for the purpose of making bee-keeping a business, and have not the practical skill and love for the bee, and that is their reason for coming, I would say, don't do it, for you will be doomed to disappointment. You would be certain to make a failure in any place where bees are kept without that skill and love for the business. But if you desire to come South for climatic reasons, health and a warm, pleasant climate, and desire to make bee-keeping a side issue, then you had better perhaps come; but to come South, or to "go West and grow up with the country," is usually the worst of folly.

Nine times out of ten, the best place for you to make money, or a living support, is the spot you are in—you are acquainted there, "you know the people," the climate, seasons, surroundings, advantages and disadvantages. You have all these to learn in your new location. Life is too short to spend it all in so much learning; by the time you have only got started to all the promising places, your time will expire here, and you will be called to eternity long before you have got to that good place on earth, unless you stop where you are, and make it there.

Astor Park, Fla.

That Foul-Brood Theory.

DR. C. C. MILLER.

Mr. C. J. Robinson is quite right in stating, on page 44, that I do not know all about foul-brood, but please, Mr. R., why do you attribute to me a theory that I never offered as my own, and in which I do not believe? Evidently you have based your opinion on the passage you have quoted in your first paragraph. The quotation is not a very brilliant specimen of good English, but taking it just as it is, how can you understand that the theory given in the last sentence is mine? I say, "Chilled brood never made foul-brood. Does any one really believe that it ever did? Do they not rather hold this view?" and then comes the theory that you say I hold. Now, Mr. R., what did you understand I meant by "this view?" Could it mean anything else than the "view" which immediately follows, and is there any fair ground for the inference that I hold such a view? Indeed, I do not make the assertion that any one holds such a view, but merely ask the question whether they do not. I really supposed that some such a view was held by those who say that chilled brood makes foul-brood. From what you say I expect that I was mistaken in this.

Will you kindly tell us in very plain terms as to your belief? Suppose that there is no foul-brood within miles of you, and no spore, or any trace of it, allowed to come within that distance, do you believe that you can, merely by allowing brood to be chilled, produce the disease? In other words, without allowing a single *bacillus alvei*, or spore, to come from elsewhere, can you get chilled brood in just such a condition that the *bacilli* will be generated therein? Please tell us about this, and if you answer in the affirmative, I will probably correct my statement, and confess that there is one more thing that I did not know.

I may say in passing, that while I do not believe that foul-brood spores are floating around everywhere, and while, as you say, learned scientists do not know of any bacteria or spores that commonly float around in the atmosphere except the two you mention with the hard names, there is certainly a little color for such a belief when Frank Cheshire says, "It is extremely likely that spores are carried in the air."

I am not sure that I fully comprehend your third paragraph, but get from it a suspicion that my white clover illustration was a little muddy—at least not entirely clear. Let me see if I can do a little at clearing it up. I had in mind one who believed in the theory, saying something like this:

"White clover comes up so plentifully and so generally, even in places where it can hardly seem possible that seed should have been dropped, that one might almost suppose that it had come up of itself, without any seed. In the same way, foul-brood seems to spring up of itself in places where there seems to be no chance for seed or spores to have been brought; yet in both cases there must, in some way, have been the seed before the growth."

There, Bro. Robinson, I flatter myself that I have brought it down—or up—even to the comprehension of "mortals,"—but, then, "I don't know."

Marengo, Ills.

Convention Notices.

☞ The annual meeting of the Colorado State Bee-Keepers' Association will be held in Denver, Jan. 18 and 19, 1892.
H. KNIGHT, Sec., Littleton, Colo.

☞ The 12th annual convention of the Northeastern Ohio, Northern Pennsylvania and Western New York Bee-Keepers' Association will be held in Ashtabula, O., on Jan. 27 and 28, 1892, in the parlors of "Hotel James," where reduced rates for board have been secured for those attending the convention (35 cts. per meal). A good program will be prepared to be discussed by practical bee-keepers. All interested are invited to attend. Ladies are especially invited. Programs will be sent to all members and to others upon sending a request to the Secretary.
N. T. PHELPS, Pres., Kingsville, O.
GEO. SPITLER, Sec., Mosiertown, Pa.

☞ The Ohio State Bee-Keepers' Association will hold its next annual meeting at the West-End Turner Hall, on Freeman Avenue, Cincinnati, O., from Feb. 10 to 12 inclusive, 1892, beginning at 10 a.m. Wednesday, Feb. 10. All local associations should endeavor to meet with us or send their delegates. Those intending to be present, will please send their names to the Secretary, at their earliest convenience. The President will endeavor to get reduced railroad rates, and also reduced rates at hotels. The programme will soon be issued, and all particulars published.
C. F. MUTH, Pres., Cincinnati, O.
S. R. MORRIS, Sec., Bloomingburg, O.

CONVENTION DIRECTORY.

Time and place of meeting.

1892.
Jan. 18, 19.—Colorado State, at Denver.
H. Knight, Sec., Littleton, Colo.

Jan. 20, 21.—The Minnesota, at Owatonna.
Wm. Danforth, Sec., Red Wing, Minn.

Jan. 27, 28.—N. E. Ohio., N. Pa. & West. N. Y., at Ashtabula, Ohio.
Geo. Spitler, Sec., Mosiertown, Pa.

Feb. 10, 11, 12 —Ohio State, at Cincinnati.
S. R. Morris, Sec., Bloomingburg, O.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—The Editor.

North American Bee-Keepers' Association

President—Eugene Secor..Forest City, Iowa.
Secretary—W. Z. Hutchinson....Flint, Mich.

National Bee-Keepers' Union.

President—James Heddon ..Dowagiac, Mich.
Sec'y and Manager—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Bees Flying on New Year's Day.

My bees had a fine flight on New Year's day, and were busy at the water trough, as they might be seen in May. What effect will it have on them in the Spring? I thought that November was late enough for them to be flying, but this beats all former records.

Joseph Funk.

Beach City, O., Jan. 1, 1892.

[To have a cleansing flight as late as New Year's day is to their advantage, making the Winter confinement shorter, and more endurable.—Ed.]

Results of the Past Season.

Each number of the Bee Journal is carefully read as soon as received, and kept for future reference. No bee-keeper can do without it after he has once read it. I lost one colony of bees last Winter, leaving me 6 colonies, Spring count, none of which were very strong, and the early part of the season being very cold and wet, I had to feed them some. From June 6 to Aug. 16 I had 7 swarms, making a total of 13 colonies, which were worked for comb-honey. At the close of the season I had 643 one-pound sections, well filled and capped, and about 50 partially filled, making an average of 107 pounds per colony, Spring count. My second best colony gave 112 pounds each. I am wintering my bees on the summer stands in double-walled hives. My hives are somewhat different from any that I have seen or read of, and I consider them the best for comb-honey, and for wintering on the summer stands. I may describe them in the Bee Journal at some future time, if it is desired.

F. R. Reiter.

Phillips, Nebr., Dec. 28, 1891.

Honey-Dew Killing the Bees.

Bees are wintering badly. I got about 600 pounds of extracted honey-dew from my bees last season. It was very dark and thick, and part of it candied before it was sealed over. A goodly part of it was left in the hives for winter stores. I have 27 colonies, 24 I put into the cellar, and left 3 on the summer stands. The bees run out of their hives and drop on the cellar floor, and I can sweep up enough for a fair swarm once a week. I am afraid there will not be many left before Spring opens. Those on the summer stands seem to be no better off.

Fred Bechly.

Searsboro, Iowa, Jan. 6, 1892.

Bee-Keeping in North Arkansas.

My bees are all wintering well, with plenty of stores. They did well the past season up to July 4, after which time they hardly made a living. I divide all of my colonies in preference to allowing them to swarm, as I think it best. As I rear all my queens, my bees are pure Italians. I would not have anything else. This is a good locality for bees, as well as for fruit of all kinds. No country holds out more inducements to the fruit-grower than North Arkansas, with its cheap land, and its pure, healthy water and mild climate. If desired, any information about this country will be promptly given. I am a constant reader of the American Bee Journal, and cannot do without it as long as I keep bees, if it costs me twice the subscription price.

Thos. L. Tiner.

Ingram, Ark., Jan. 2, 1892.

Responsibility of Queen-Breeders.

I notice on page 23 that Mr. A. C. Tyrrel thinks that the queen-breeders are a very dishonest class of people, at least as far as queens are concerned. My experience in getting queens from a distance has been quite different from his. The last season I received queens from seven different breeders, and they were all that was claimed for them. I got queens from six different States, and some from Italy. The queen-breeders, as a general rule, will do what is right if we give them a chance. I hardly think Mr. Tyrrel meant what he said about their being something radically wrong with the queen-breeders of this country—that would mean all that rear queens for sale, and that would hardly be fair, as there must be some honest breeders.

Charles White.

Farmer's Valley, Nebr., Jan. 4, 1891.

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Galvanized Iron Tank for Honey.

I have a large galvanized iron tank that I wish to use for storing honey. Is it safe to do so? Will the iron affect the honey in any way? C. K. Reading.

Nashville, Tenn.

[Honey evaporators in California are always made of galvanized iron. We should not hesitate to use your tank for storing honey. Zinc is wholly unfit for such a purpose. In fact, it will not do to have even water stand in a zinc receptacle, but galvanized iron is quite a different thing.—Ed.]

◆

German or Black Bees vs. Italians.

Notwithstanding I have expressed myself in favor of Italian bees as compared with the Germans or blacks, yet it is a fact that I am going to eradicate the last golden tinge and yellow band in my apiary of 50 colonies. Queen-breeders have, in a measure, caused me to take this step, by my repeated purchase of yellow queens whose progeny had nothing to recommend them save their good looks. I have found out to my loss that belts and rings on bees have but little to do with well-filled section cases, and still less with the snow-white capping of the sections. I can say of light-colored Italian bees, as Goldsmith said of his muse, they "found me poor and kept me so." There is still another reason for this act of mine. I have determined to increase my home apiary to 365 colonies, and this will be done as quickly as the bees will pay for it. Not one inch of brood-foundation will be used. The bees will have to build out their own brood-combs from top to bottom bar. I never considered that Italian bees were skillful in this direction. But what race of bees will I substitute? I cannot tolerate cross-bred animals or insects. I am afraid of Carniolans, and I will not rise to the Punic "bait." Necessity compels me to turn to the German race of bees. Can a good comb-honey apiary be made out of them? I mean to try it.

Beason, Ills. James Hamilton.

◆

Lovers and Producers of Honey.

Although I have seen no report from the honey producers of this county (Dodge) in the Bee Journal, I wish to say that our people are great lovers of good honey, and produce it quite extensively. I began last Spring with 33 colonies of bees, increased to 59, and produced 1,600 pounds of all white honey. Some of my first sales of honey were at 12½ cents, but the most of the crop went at from 15 to 18 cents per pound. White clover and basswood were our only sources for honey this season. Buckwheat was plentiful, but failed to produce any nectar. The Fall crop of flowers was also plentiful, and as a general rule we get a good supply of honey here in the Fall, but the past season has been an exception. My bees were put into winter quarters with a good supply of white honey. They are very quiet, and I think they are doing well. Foul-brood has never made its appearance in this county, so far as I know. We have a few of the "old-fogy gum-tree" men still amongst us. I sold one of them 10 of the Langstroth improved hives last Spring, but he says they are not as good as the box or gum-tree hives. C. H. Pond.

Kasson, Minn., Dec. 26, 1891.

◆

The Season of 1891.

I put 7 colonies of bees into the cellar on Nov. 3, 1890, and took them out on April 12, 1891, in as fine condition as when they were put in. The amount consumed was from 9 to 14 pounds of honey per colony. In 1891 I increased them to 21 colonies, lost 3 colonies by worms, and the balance stored 400 pounds of surplus honey in one-pound sections—the finest of honey which sold at 15 cents per pound at home. My bees are doing well at present. I fear that some of our bee-men will be disappointed in the Spring. Those that did not feed their bees last Fall, must soon do so. If I had not fed my bees, not half of them would come through this Winter alive. A great many writers complain of black bees, in the Bee Journal. I had a little test last Summer. A black swarm issued on June 1; sent out one swarm, and stored 75 pounds of surplus honey in one-pound sections. An Albino swarm isssued on June 7, gave no increase, stored but 25 pounds of honey, and were very cross. I do not think this State will ever become a successful one for bees. The season is too short and uncertain. If we have one good season, we have to feed the profit to the bees before we have another good season. About every man I talk with knows just how to keep his bees from swarming, but I see their bees increase just the same. I shall try my skill the coming Summer. I expect it will result just the same. I will report after the season. J. M. McCarty.

Plainview, Minn., Dec. 30, 1891.

Stored Honey from Alsike Clover.

In the Fall of 1890 I put 50 colonies into the bee-cellar. Their stores were poor honey, but they had all that they had stored, as I did not take a pound of surplus, and I also fed 200 pounds of granulated sugar. In the Spring of 1891, when honey and pollen began to come in, there were but 25 colonies, and some of them were very poor ones. They commenced to store in the sections when the Alsike clover commenced to bloom, of which I have a few acres near by, and as long as it was in blossom, I saw but few bees on the white clover, although white clover was abundant; but in the Alsike there was a perfect roar from morning until night. My best colony and its prime swarm stored 90 pounds of nice honey, and the poorest colony stored none. The average, Spring count, was 35 pounds of nice white honey. I. W. Rollins.

Elgin, Minn., Jan. 5, 1892.

Queen-Breeders.

On page 23 Mr. A. C. Tyrrel says that "something is radically wrong with the queen-breeders in this country." Is there not something radically wrong with Mr. Tyrrel? He does not say how many queens he has purchased, nor whether he has bought of more than one breeder, but he accuses queen-breeders as a class of being dishonest. I have dealt with four of the leading breeders of the United States in 1891, and they have given me value for value, sending good queens without any "theory" or "fungus growth." Now, I do not intend to say that he is not stating the truth, but probably if he were to explain himself a little plainer, there would be something that he has *not* told that would explain why he has not got satisfaction. If Mr. Tyrrel really has any grievance, and the parties who sold him the queens will not make it right, he should complain of them, and not of all who sell queens. I have just looked over the books of S. F. & I. Trego, and find that he is not one of our customers, and yet we have to bear as much of the complaint as any one, just because the gentleman sees fit to attack queen-breeders in general. S. F. Trego.

Swedona, Ills., Jan. 4, 1891.

Large Crop Anticipated.

We ought to have a large honey harvest in Northern Michigan next Summer. We have not had a "big" year in this immediate vicinity since 1882; when we secured 300 pounds per colony. one-half milkweed; one-third basswood; the balance was mostly from raspberry and golden-rod. Since then we have run from 100 to 200 pounds per colony until the past season, when we dropped to 60 pounds, all basswood and milkweed. I consider it a poor year when a good colony gathers less than 100 pounds from milkweed alone. Why has it been abused so much? It is our main dependence. It failed us last season for the first time since I have kept bees. On an average we get twice as much honey from it as from basswood. C. A. Montague.

Archie, Mich., Jan. 3, 1892.

[While milkweed yields honey very plentifully, quite often it cripples the bees, or kills them, by the pollen masses which attach to their feet. It soon hardens, and being of a very glutinous nature, it is hard to remove. Does it not act in that way with your bees? If not, there must be a difference in the milkweed, or in the soil, or the atmospheric conditions. You certainly have a locality to be proud of, as your honey crop shows.—Ed.]

Wavelets of News.

These Items from the Michigan *Farmer* will be read with interest by bee-keepers generally:

Cuban honey comes into the United States without duty. It is of fine quality, and American honey-producers have filed a protest against the free entry, with the State Department.

Apiarists fear that they are going to be very much crowded at the Columbian Exposition. About 100 square feet of space is to be allowed to each State. Two exhibitors at the Detroit Exposition occupied 728 feet.

Geo. Hilton, of Fremont, says there are thousands of acres of "willow herb," which is a fine honey-producing plant, 25 miles north of that point. The willow herb honey is very excellent quality. Some enterprising apiarists should enter and utilize this source of supply.

Labels on Tin.

Did you ever have trouble with the labels pealing off your tin honey-pails? I did before I gave the tin vessels a thin coat of Japan varnish. This prevents rust, and after the varnish becomes dry ordinary flour paste will make the labels cling on as well as they would on glass or wood.

Corks that seem too large for honey jars can be softened by squeezing them with a lemon squeezer. A more speedy method is to boil them in water, and press them in place while hot.—WALTER S. POUDER, in the *Indiana Farmer*.

Queenless Bees Cross.

It is a mistake to suppose that a colony of bees will not show fight if they are without a queen. A colony of bees without a queen that have queen-cells started, are always on the alert, and are inclined to be very vicious if meddled with. I have also known them to be irascible when they were hopelessly queenless. Last season I noticed one of my colonies of bees showed unmistakable signs of being queenless. It was a few days after the swarming season was over, and I knew that the colony was without eggs or brood. It slipped my memory to examine it closely until two or three weeks after.

I happened in the yard at midday and observed this particular colony was not carrying pollen. I made an examination which showed them to be without a queen. It also showed them to be as ill-natured as any colony I ever saw. Being hard pressed for time and having several little boxes containing queens and a few bees that I had saved at swarming time, I smoked the colony thoroughly, and also the bees in one of the small boxes, and shook the bees and queen from the box at the entrance of the hive. The next evening I examined them to see if my slip-shod way had been a success, and found them as quiet as kittens. The combs also contained eggs.—J. H. ANDRE, in *Homestead*.

Fable of a Charitable Bee.

A man, who had been walking through a public park, finally became tired, and was about to sit down on a bench to rest, when of a sudden a bee stung him on the leg. After jumping four feet high, and uttering a yell that was heard a mile away, the man turned on the bee and shouted:

"Base ingrate, have I ever harmed you?"

"Hardly ever," calmly replied the bee.

"Then why this attempt to assassinate me?"

"My dear man, you have on a new Spring suit; you were about to sit down on a freshly-painted bench; your clothing would have bee ruined; what I did was for your own good, and I am entitled to thanks instead of insults."

Bee-Keeping for Women.

Some women cannot keep bees, any more than some men; but many can, and to their great profit. Often, the wife or daughter of a farmer will welcome an occupation for the sake of its novelty, something to break up the routine of cooking, washing and sewing; and bee-keeping, even if it brings only a few pounds of honey for the table, is undertaken and carried through with pleasure and delight.—*N. Y. Independent.*

☞ The Minnesota Bee-Keepers' Association will meet in Owatonna, Minn., on Jan. 20 and 21, 1892. Free entertainment will be provided for those attending by the citizens of Owatonna, and it is expected that the railroads will carry those attending, at reduced rates. The State Horticultural Society hold their annual meeting at the same time.

WM. DANFORTH, Sec., Red Wing, Minn.

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HONEY AND BEESWAX MARKET.

CHICAGO, Jan. 7.—Fancy white comb is selling at 16c.; other grades 10@14c. Extracted slow demand, 6½@7½c. Beeswax, 26c.
S. T. FISH & CO., 189 S. Water St.

NEW YORK, Jan. 8.—Demand is limited, and supply sufficient. No demand for 2-℔ sections. We quote: Comb—Fancy white, 1-lb., 13@14c; off grades, 1-lb., 10@11c; buckwheat, 1-lb., 9@10c. Extracted—Basswood, 7c; California, 7@7½c; buckwheat, 5½@6; Southern, 65@70c ⅌ gal. Beeswax, scarce and firm, at 26@28c.
HILDRETH BROS. & SEGELKEN,
28-30 West Broadway.

KANSAS CITY, Mo., Jan. 9.—Demand and supply are fair. We quote: White comb, 1lb., 15@16c; dark, 10@12c. Extracted — White, 7c; dark, 5@6c. Beeswax, is in light supply, and demand good, at 23@26c.
CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI, Jan. 9.—The demand is slow, with good supply, except choice comb. We quote: Choice white comb, 14@16c. Extracted, 5@8c. Beeswax is in good supply and fair demand, at 23@25c for good to choice yellow.
C. F. MUTH & SON,
Cor. Freeman & Central Aves.

NEW YORK, Jan. 9.—Demand for honey is fair, with adequate supply. We quote: Fancy 1-℔., 14c; do 2-℔., 12c; fair, 10@12c; buckwheat, 9@10c. Extracted—Clover and basswood, 7@7¼c; buckwheat, 5¾@6c. Beeswax, in fair demand, with adequate supply, 26@27c.
CHAS. ISRAEL & BROS., 110 Hudson St.

KANSAS CITY, Mo., Jan. 9.—Demand poor, with large supply of comb. We quote: Comb—1-lb. fancy, 15@16c; dark, 12@13c. Extracted—White, 7@7½c; dark, 5@6c. Beeswax—None in market; light demand.
HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, Jan. 9.—The demand for comb-honey is fair and supply moderate. We quote: Comb, 12@13c; extracted, 7@8c. Beeswax in good supply, and light demand, at 25@26c.
M. H. HUNT, Bell Branch, Mich.

CHICAGO, Jan. 9.—Demand good and supsufficient. We quote: Comb, 14@16c. Extracted, 6@7c. Beeswax, in light supply, and good demand, at 25@27c.
J. A. LAMON, 44-46 S. Water St.

MILWAUKEE, Jan. 9.—Demand fair and supply good, except of the best quality. We quote: Comb—choice, 1-lb., 15@16c; fair, 13@14c; dark, 10@12c. Extracted—white, in barrels or kegs, 7½@8c; dark, 6@6½c. Beeswax, 23@28c.
A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO, Jan. 9.—Demand good, supply small. We quote: Comb, 1-lb., 10@14c. Extracted, 5½@6½c. Beeswax, in light supply and good demand, at 23@25c.
SCHACHT, LEMCKE & STEINER,
16 Drumm Street.

MINNEAPOLIS, Minn., Jan. 9.—Demand is moderate, supply ample, and shipments coming in freely. We quote: White comb, 17@18 cts.; dark, 14@15c. Extracted, 10@10½c.
STEWART & ELLIOTT.

CHICAGO, Jan. 9.—Demand is now good, supply is not heavy. We quote: Comb, best grades, 15@16c. Extracted, 6@8c. Beeswax, 26@27c. R. A. BURNETT, 161 S. Water St.

BOSTON, Jan. 9.—Demand is light, supply ample. We quote: 1-℔. fancy white comb, 14@15c; extracted, 6@7c. Beeswax, none in market.
BLAKE & RIPLEY, 57 Chatham St.

ALBANY, N. Y., Jan. 9.—Demand is slow, supply not liberal, as stock is mostly in. We quote: White comb, 12@15c; buckwheat and mixed, 8@12c. Extracted — Light, 7@7½c; dark, 6@6½c. Beeswax—Supply light, and demand steady, at 28@29c.
H. R. WRIGHT, 326-328 Broadway.

NEW YORK, Jan. 9.—Demand is light, and supply large, except buckwheat comb. We quote: Fancy white comb, 12@14c; buckwheat, 9@11c. Extracted—Clover and basswood in good demand at 6½@7c; buckwheat ind emand at 5@6c. Beeswax in fair demand at 26@28c.
F. I. SAGE & SON, 183 Reade St.

NEW YORK, Jan. 9.—Demand moderate, and supply reduced, with no more glassed 1-℔ nor paper cartons, 1-℔. We quote: Comb, 1-℔, 14@15c. Extracted—Basswood, 7¼@7½c; buckwheat, 5½@6¼; Mangrove, 68@75c per gal. Good demand for dark extracted honey. Beeswax, in fair supply, with small demand, at 26@27c.
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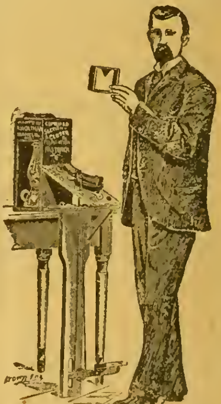

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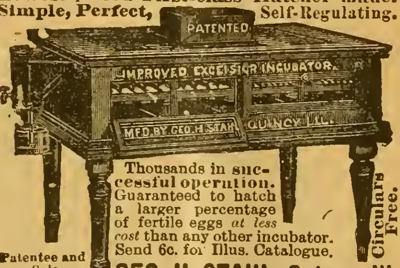
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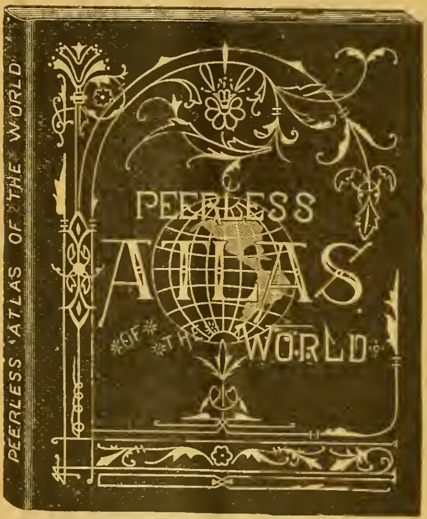

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The large cities of the world are on the maps.
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Population of each state in the Union for the past fifty years.
A condensed history of each state.
Miles of railroad in each state.
The peculiarities of soil and climate, together with the chief productions, principal industries and wealth of each state.
The educational and religious interests of each state.
List of all the Presidents of the United States.
The popular and electoral votes for president in 1880, 1884 and 1888, by states.
The agricultural productions of the United States.
The mineral products of the United States.
Homestead laws and civil service rules.
Statistics of immigration into the United States, 1820 to 1891.
Public debt of the United States for the past 100 years.
Commercial failures in the United States for 1889 and 1890.
Indebtedness of the world, with per cent of increase or decrease for 1880 and 1890.
Gold and silver statistics of the United States.
Interest laws and statutes of limitations for each state and territory.
Exports of breadstuff and petroleum for 1889, 1890 and 1891.
Number and value of farm animals in the United States.
The cultivable area of the United States as compared with increase of population.
Postal information, with rates.
And much other information that should be in all homes, stores and offices.

It contains a General Description of the World, giving its physical features—form, density, temperature, motion, the seasons, climatic conditions, winds and currents; distribution of land and water; heights of mountains and lengths of rivers; races of people and their religions; a historical chapter on polar explorations; also the most complete list of nations ever published, giving their geographical location, area, population and form of government. Every school boy and girl, as well as college student, will find it an invaluable aid in the study of geography in all its phases, and parents should not fail to provide their children with it, and thus place in their hands a potent and comprehensive educational aid, supplementing and assisting the work of the school.

Thomas G. Newman & Son, 199 Randolph St., Chicago, Ills.

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ONE DOLLAR PER YEAR.

Club Rates,—Two copies, **$1.80**; 3 copies, **$2.50**; 4 copies, **$3.20**; 5 copies, **$3.75**. Mailed to any addresses.

THOMAS G. NEWMAN,
EDITOR.

Vol. XXIX. Jan. 22, 1892. No. 4.

Editorial Buzzings.

Trifles should never discourage.
But only be spurs to help on;
Spiders that lose their threads often
Replace them as oft as they're gone.

Bees that go searching for honey,
Though far, far away from their home,
Will never return without any,
If half of the day they must roam.

People can learn precious lessons
From spiders and bees, I am sure—
Lessons that when in life's battles
Will help them to fight and endure.
A. B. JINGLER.

◆

The Report of the convention at Los Angeles, Calif., writter by Rambler, has come to hand since this JOURNAL was filled. It may be expected next week.

◆

We Regret to learn that the family of our friend Secor, President of the North American Bee-Keepers' Association, are now under the power of *La Grippe*.

Good Enough.—Mrs. J. M. Null sends us this item of news:

> A woman bee-keeper has won a case in court against a builder who destroyed her swarm of bees which happened to settle in his garden. The bees annoyed him, and he took a pail of paraffine and tar and held it under the swarm until the bees dropped, stupefied, into the flames. The court condemned him for his act, and gave the woman damages.

That is right! Such men must be taught that bee-keepers, both male and female, have rights which they are bound to respect!

Mrs. Null writes thus about the National Bee-Keepers' Union:

> As to officers, where could we get superior ones than we now have? Their efficiency having been proved, why not retain them without consulting them in the least? Put my vote down that way. We do not want new ones to be tried and found wanting.
>
> You cannot imagine how glad I was to see in the Annual Report the increase in numbers. Let the good work go on. Every bee-keeper should not only belong to it, but should get one more to join, if possible. It is a pity that there were not more Smiths and Taylors. I see that there are five of each of them in the Union.
>
> I see that the next meeting of the North American Bee-Keepers' Society is to be at Washington. Why not have it at the same time as the G. A. R. Reunion? Then many ladies could attend in company with their husbands, and all would get the benefit of the very low rates given to the G. A. R.
>
> The AMERICAN BEE JOURNAL has just arrived, and I had to digest its contents before even sending this to you. It is like the coming of a dear friend each week. MRS. J. M. NULL.

That is an excellent suggestion about holding the National Convention in Washington, D. C., at the same time as the Grand Army Reunion. We commend this to the consideration of the Executive Committee.

◆

I Know an advertiser, says the *Shoe Recorder*, which took 10 per cent. of last year's profits and invested it in advertising. That is a good idea, and one that pays well.

Bees at the World's Fair.—N. Clemmons, Rock Bluffs, Nebr., writes thus on the above subject:

> I see that bees and honey are to be exhibited at the World's Fair, but how the bees are to be exhibited is not stated. I wish to know. I want mine to fly and do all the work they can. I want to come, with bees, if I live to get there. N. Clemmons.

We do not know—neither does any other person, at present. As soon as a Superintendent is appointed for the Apiarian Department, the matter can be decided; until then nothing can be stated with any degree of authority.

Lady Apiarist Married—The following notice is from the Wabasha, Minn., *Herald* for the first week in January:

> Miss Lizzie Theilmann and Mr. Wm. Dankwart were united in marriage at the German Lutheran Church last Sunday by the Rev. J. Smith. The bride is one of our estimable young ladies, and daughter of Mr. Theilmann, the well-known farmer and apiarist. The groom is a prosperous farmer residing a few miles west of this place. In the afternoon a number of invited guests gathered at the home of the bride's parents, where a sumptuous repast was served. In the evening the happy couple departed for their future home. May every new year be as full of happiness to them as this one.

We heartily join in the New Year's wish of the *Herald*. Miss Lizzie has left a place in her father's family which will long remain vacant. She was his main help in the apiary, and he writes us as follows concerning her late important step:

> Lizzie has been of great assistance to me in the apiary, for a number of years, and she is well advanced in bee-keeping. Her place will be hard for me to fill in the home apiary. When I went to the out-apiaries, or off on other business, I could safely trust her with the bees. She is industrious and kind, and an untiring worker in the church. May her future life be as happy as it has been in the past.
>
> My bees seem to winter well, although the temperature is now somewhat lower in my bee-cellar than usual, as we have had but little snow so far, and therefore the ground freezes harder, though we had not much cold weather until within a week. C. Theilmann.
>
> Theilmanton, Minn., Jan. 14, 1892.

May her honey-moon last through life, and her married state be as sweet as honey, and as pleasant as a sunny day is to the bees.

Prof. A. J. Cook gave an address at the California State Convention last week, at Los Angeles, on the work accomplished by the National Bee-Keepers' Union. As a result, 13 of his audience requested to be enrolled as members. Mr. John H. Martin ("Rambler") took the names and money, and sent them to the General Manager for enrollment.

Such a forcible address as that, at each meeting of bee-keepers, would soon run the membership up into the thousands, where it ought to be.

Some one should volunteer at each convention to present the matter for consideration and action. Where are the champions? "One volunteer is worth ten pressed men."

Catalogues for 1892, are on our desk from—

St. Joseph Apiary Co., St. Joseph, Mo.
John Nebel & Son, High Hill, Mo.
J. W. Rouse & Co., Mexico, Mo.
M. H. Hunt, Bell Branch, Mich.
G. M. Doolittle, Borodino, N. Y.
G. W. Cook, Spring Hill, Kans.
E. T. Flanagan, Belleville, Ills.

Marvelously Rich in illustrations and text is the fiftieth anniversary number of the *American Agriculturist* for January. It contains no less than 143 illustrations engraved especially for it. Most of the leading authorities in American and foreign agriculture are among its contributors. We club the *Agriculturist* and the Bee Journal for $2.10 a year.

We Have received the programme of the Seventeenth Annual Convention of the Vermont Bee-Keepers' Association, to be held in the parlors of the Addison House, at Middlebury, Vt., on Jan. 27 and 28, 1892.

The Central Vermont railroad reduced rates are as follows: From stations within 33 miles from Middlebury, 2 cents per mile each way, with minimum rate of 25 cents, and maximum rate of $1.00. 34 miles and over, fare one way. Tickets will be good going on 26, 27, and 28; good for return until Jan. 29.

The Bennington & Rutland railroad fare one way, from all stations on the line of their road to Middlebury. Good Jan. 27 to 29 inclusive.

The following are the essays and subjects for discussion:

"New races of bees"—H. W. Scott, Barre.

Report of the North American Bee-Keepers' Convention—W. G. Larrabee, Larrabee's Point.

Report of committee on honey exhibits at the coming World's Fair.

"Will it pay to feed bees syrup in the Spring, so as to have the hives full when the honey season comes?"—J. E. Crane, Middlebury.

"How I managed my bees during the last swarming season"—V. V. Blackmer, Orwell.

"How I sell extracted-honey"—W. G. Larrabee, Larrabee's Point.

"Overstocking in Vermont, can it be done?"—H. L. Leonard, Brandon.

"Old or young bees for wintering—which?—R. H. Holmes, Shoreham.

Loose or fixed frames, spraying of fruit trees—co-operation among bee-keepers, and how best to dispose of our product.

MARCIA A. DOUGLASS, *Sec.*
Shoreham, Vt.

Will we have war with Chili? Every one now is asking his neighbor what he thinks of the chances of war. Apparently this is because Frank Leslie's *Weekly* devoted so much space to illustrating the wonderful ships of the new navy. A most interesting picture is shown of the *Miantonomoh*, which is the strongest boat in the new navy.

Sugar Syrup is not honey, and no amount of sophistry will make it so. Here is an item presented by N. M. Hollister, of Springfield, Mo., who writes:

> On Dec. 21, 1891, I had 3 colonies of bees stolen. This is the second time that thieves have visited my apiary during the past few months. Bee-keepers here have suffered 5 or 6 times lately, and we have but little clew to the thieves.
>
> This morning I found where they had cut the combs. Two of them had sugar syrup fed for Winter. I tasted of some scraps they had left, and it was still sugar syrup—not honey! Some claim that bees *make* honey, but they had not made it in this case.

Here is Another item for the discussion of the question whether reason or instinct is to be credited with some of the actions of honey-bees. Mr. W. S. Pouder gives the following in the *Indiana Farmer* of last week:

> When robber bees have discovered some spoil, what method do they take to impart the knowledge to their comrades?
>
> Some claim that they are attracted by the peculiar hum of the finders; but did you ever notice that when you attempt to feed bees in open air, if you place a feeder at a south window of a building, the bees will search the south windows of all the surrounding buildings in the neighborhood?
>
> A feeder placed at the base of a tree will attract the bees to the base of every surrounding tree, just as though some one had come in screamed out—"Here, Comrades! there are spoils under one of the trees near by." Maybe their theory is, that if there is a feeder under one tree, there may be one under every tree, and consequently they are only prospecting. Who will tell us?

R. F. Holtermann is now making addresses at the Farmer's Institutes. Division 5 has 10 appointments in January, and friend Holtermann is one of three to do the talking. He is a young man of ability and much enthusiasm.

Now is the time to join the National Bee-Keepers' Union. Send to this office for the necessary Blanks.

Our National Flower.

'Tis meet a nation's symbol be
 One of God's fragrant flowers ;
They catch the sunlight of His smile,
 And drink His crystal showers.
They bloom in lowly glade and glen,
 And on the mountain hights,
And in their prismed petals hold
 The rainbow's radiant lights.

The lily tells of sunny France,
 Cornflower of "Fatherland ;"
The thistle and the heather-bells
 For Scotland's glory stand ;
While England claims the royal rose,
 And wears it on her shield,
And shamrocks, green as emerald,
 Fair Erin's meadows yield.

Then choose we from the wealth of bloom
 That makes our landscape gay,
A blossom bright to name us in
 The nation's great bouquet.
And seek it not 'mid close-cut rows.
 Of fragrant hot-house flowers,
But be its tender tintings known
 In mead and rustic bowers.

A flower there is that blooms for all,
 For rich man and for poor,
Upon the Western prairie wastes,
 And on the Northern moor.
Like Gheber true it greets the sun
 Where all the East is red,
And o'er the Southern cotton-fields
 It shakes its golden head.

Then be our symbol rich and rare,
 This flower so blessed of Heaven,
And let our sweetest songs and thoughts
 Henceforth to it be given.
The Golden-rod ! the Golden-rod,
 Columbia's regal crest,
It lies like sunshine in the land,
 And seems with sunshine blest !

—Pacific Rural Press.

Queries and Replies.

Flat Covers or Gable Roofs for Hives.

QUERY 802.—Which is the most desirable for hives—a flat cover or a gable roof ?—Ohio.

A flat cover.—JAMES HEDDON.

I prefer a flat cover.—C. C. MILLER.

I prefer a gable roof.—M. MAHIN.

A flat cover, of course.—R. L. TAYLOR.

I prefer the flat cover.—J. M. HAMBAUGH.

A flat cover, every time.—C. H. DIBBERN.

A flat cover has always satisfied me.—MRS. L. HARRISON.

After several years' experience with both, I prefer the flat cover.—A. J. COOK.

A flat cover suits me of late years.—EUGENE SECOR.

A flat cover is as good as a gable one, if it is sloping.—DADANT & SON.

A flat cover, I think. Convenience in packing them is one reason.—J. E. POND.

I use a flat cover overlaid with tin, which is painted white.—G. M. DOOLITTLE.

Flat covers lined with roofing-steel are by far the best—if kept painted every two or three years.—G. L. TINKER.

If you have many hives, use a flat cover. A gable roof has some advantages ; but, take it all in all, a flat roof is to be preferred.—H. D. CUTTING.

Flat, if to be covered with tin ; but if no metal covering, I prefer a gable.—J. P. H. BROWN.

I prefer a flat one, and would rather pay for such, than to use a gabled one that cost me nothing.—A. B. MASON.

I like the flat cover the best. I would use a shade-board that "turns water," over any sort of hive cover, and there is no need of a gable roof if the shade-board is used.—G. W. DEMAREE.

A flat cover is more desirable for many reasons. If the hive slopes a little to the front, all the advantages of the gable roof is obtained without any of its many disadvantages.—THE EDITOR.

Convention Notices.

☞ The 12th annual convention of the Northeastern Ohio, Northern Pennsylvania and Western New York Bee-Keepers' Association will be held in Ashtabula, O., on Jan. 27 and 28, 1892, in the parlors of "Hotel James," where reduced rates for board have been secured for those attending the convention (35 cts. per meal). A good program will be prepared to be discussed by practical bee-keepers. All interested are invited to attend. Ladies are especially invited. Programs will be sent to all members and to others upon sending a request to the Secretary.

N. T. PHELPS, Pres., Kingsville, O.
GEO. SPITLER, Sec., Mosiertown, Pa.

☞ The Ohio State Bee-Keepers' Association will hold its next annual meeting at the West-End Turner Hall, on Freeman Avenue, Cincinnati, O., from Feb. 10 to 12 inclusive, 1892, beginning at 10 a.m. Wednesday, Feb. 10. All local associations should endeavor to meet with us or send their delegates. Those intending to be present, will please send their names to the Secretary, at their earliest convenience. The President will endeavor to get reduced railroad rates, and also reduced rates at hotels. The programme will soon be issued, and all particulars published.

C. F. MUTH, Pres., Cincinnati, O
S. R. MORRIS, Sec., Bloomingburg, O.

Topics of Interest.

More About the Grading of Comb-Honey.

M. M. BALDRIDGE.

The two-page communication of Byron Walker, in the last issue of the Bee Journal for 1891, is as good proof as I desire that he does not wish, as I anticipated, to buy comb-honey of any grade at 25 cents per pound at wholesale. Also, that when Mr. W. wishes to buy honey, as indicated, he knows enough, and will find plenty of time, to say so, and without any aid from others!

The main trouble with Mr. W. is, as I surmised, he does not like the instructions for grading honey as adopted by Northwestern convention, especially for first grade. And why? Mainly because a large percentage of what has in the past been classified as first grade comb-honey, by dealers and producers would have to go into some other grade. Now, this is one of the reasons why those instructions were prepared as adopted. The intention was to stimulate bee-keepers to produce as much first grade honey as possible, and to protect them in so doing. And this is at it should be. There are some who seem to think the instructions for first grade are too "superfine." But all should bear this fact in mind, namely, that words mean something—that first grade does not and should not mean second grade nor third grade—that it means "fancy," "premium," "gilt edge," etc., the same as in grain. Please examine the Chicago market reports on grain, and notice how seldom any sales are reported for first grade corn, wheat or oats. When comb-honey is graded by as strict rules as grain, fancy poultry, and dairy products, and the fact becomes known, then the first grade will command a fancy price, say 20 cents per pound wholesale, and 25 cents to 30 cents at retail—no matter what the other grades may sell at. And why? Because there is always a class of consumers who are both able and willing to pay a fancy price for first-class goods, and honey, as the writer happens to know from experience, is no exception.

Comb-honey of the second grade should also be good honey—good enough for general consumption, and should command as high a price at wholesale or retail as what is now sold as "choice" or "fancy," for, in fact, if honestly graded as per instructions, it will average as well and perhaps better in general appearance.

I was in hopes that Mr. W., in his reply, would copy the instructions in each grade, and then analyze them separately, and point out their defects, if any. Perhaps he thinks he has done so in substance.

By this time Mr. W. may be prepared to give instructions for grading comb-honey that will be more satisfactory than those adopted by the convention. If so, I hope he will send them along for publication, so others can see what they are.

St. Charles, Ills., Jan. 11, 1892.

Long-Tongued Bees for Red Clover.

FRANK COVERDALE.

It has been of much importance to me whether or not we have a strain or a single colony of bees that can reach the abundant quantity of nectar that red clover contains each season. In the year 1886 there was a great honey-flow from all nectar-yielding sources through this territory, and red clover was no exception, and even the first growth was rich in sweet.

O, how I did long for that honey-bee that could reach the wasting nectar! Some of the Italian bees could just dip the utmost point of their deficient proboscis only to succeed in reaching it here and there. If the bees could have reached to the bottom of the tubes, three bees could have secured an abundant load each.

In due season the hay harvest was over, the second clover crop was soon in bloom, and the first crop was not well supplied with nectar. Now, as there was but very little white clover in bloom, the bees made great efforts to reach that rich harvest. When the plant was in full bloom, the grasshoppers began to eat off the tops of the bloom, making the tubes so short that considerable honey was gathered from this source, and I want to say that the Italian bee had a decided advantage, and the close observer will know that we ofttimes get some honey from red clover at the appearance of the grasshopper.

I think that if the honey-bee had either a biter or a picker, *a la* Mrs. Harrison, it would put the same to work, and fill our hives and supers to an overflow.

If we had a strain of bees having tongues one-third longer than our Italians, what a grand result must follow. Millions of dollars would be added to the red clover belt, and that in the production of honey alone; and the perfect fertilization of red clover bloom would again make millions more for those who do not keep bees, but who would secure large crops of seed because of his neighbor's bees. If you do not believe these statements, go out amongst the hum of the bees, and see how they do aid along the line of nature. The white clover field that has been visited and re-visited, yields, without exception, an overthrust of seed. Alsike clover, that has been brought from Sweden, has been met by the honey-bee, and thus yields seed accordingly.

But how about the red clover? I have never seen but one crop that filled to perfection, or nearly so, and this eight acres was under my closest observation. The weather was exceedingly dry and windy at times, and there was some humble-bees (bombus), and large numbers of Italians and hybrids—in fact, everything favored a perfect fertilization, and the seed crop yielded a trifle over eight bushels per acre.

The past has shown very clearly that like begets like, and will produce a hog with a long snout, or a horse whose head will reach the bottom of a salt-barrel. I will be pleased to receive samples of long-tongued bees that can reach red clover.

Welton, Iowa.

Ascertaining the Purity of Italian Bees.

GEO. S. WHEELER.

I believe that bees from very yellow *pure queens*, even though they meet black drones, will show three bands and pass for pure Italians.

I have an Italian queen, very light in color, whose bees show four or more bands, that I have reared queens from the past season, and were finely marked. In my apiary there were flying at the time these young queens were out on their wedding flight, drones that eight out of ten were black, yet *every one* of these young queens produced nice three-banded bees. It is my opinion, from the experience I have had, that we may rear as many queens as we like from these young queens, and put them in an apiary where none but pure Italian drones are flying within five miles, yet their progeny will show genuine hybrids.

The first season I tried to rear Italian bees, I had a fine queen procured of a Vermont queen-breeder (more than 20 years ago). I had some 20 colonies of black bees, and only Italian drones in the one Italian colony; the other colonies reared black drones, as usual. Nearly every queen, I thought, mated with Italian drones, as the bees showed three bands like the old Vermont colony.

Well, the next season I had introduced these Italian queens, and had lots of Italian drones, and supposed I should have all my queens purely mated, and have fine three-banded bees, but such was not the case, as about every one of those queens produced hybrids. There were no Italian bees then kept within ten miles of my apiary.

The past season there were no Italian bees kept within three or four miles, which these young queens could have met. Now, I believe that queen-breeders who rear their queens from very bright yellow pure queens, and warrant the queens sent out to produce three-banded bees, run little risk in having complaints of impurity, as the workers will show three bands; yet many of them are nothing but hybrids.

New Ipswich, N. Y.

Some California Scenes Described.

W. A. PRYAL.

When I learned through *Gleanings* some months ago that Mr. A. I. Root, of Ohio, and Prof. Cook, of Michigan, were going to come to this part of California, and would be in Sacramento on Dec. 16, to be present at a meeting of bee-keepers, I was greatly pleased. I waited in anticipation of meeting those gentlemen in that city at that date, as I long had a desire to see Mr. A. I. Root, whom I seemed to know so well as a writer through *Gleanings* since early in 1877; also Prof. Cook, whom I had corresponded with when I was connected with the old *Apiculturist*, nine years ago.

It was, therefore, with the hope of seeing the gentlemen named, that I went to our capital on Dec. 15. I was detailed by a San Francisco weekly to write a report of the meeting for publication. But, lo, how disappointed I was the next day! There was no meeting to be found anywhere in the city, and I hunted up every hall, and made inquiries at the commission houses and grocery stores;

nobody had heard that there was to be such a convention. I, as an old reporter, sought the staff of a local paper—the *Evening Bee*—and they were ignorant that they were to be favored with a gathering of bee-men, or that two such distinguished scientists as Prof. Cook and Mr. Root were to visit the city (though one reporter had a vague recollection that a circular came to the *Bee* a number of weeks previous, and hinted that it would be a good idea to have a convention of Northern California bee-keepers at the capital city). I did not give up the hunt for the main objects of my visit, though the rain had commenced to fall at a lively rate, and I had no umbrella or overshoes with me—it was fair and fine at Oakland when I left it on the evening of Dec. 15. I looked over the registers in all of the leading hotels; even made a couple of trips to the State Library, thinking that the names I sought might be recorded on the register of visitors. But 'twas all in vain. I could not get to the *root* of my trouble, and my "goose" seemed to be "*cooked*."

As the day of Dec. 16 was, as I intimated before, dark and dreary, and the wind was never weary, I concluded to get out of the city as soon as possible. I was disgusted. My trip was a fruitless one. I was out of pocket; there would be nothing in it for me, as I was going to report the convention on space rates. If the bee-men, big and small, materialized, I could have written them up, I am pretty sure, for all they were worth. But I never knew how worthless men were (to a reporter, of course) when they did not come up to see and be seen—to talk and be talked to.

All I cared to see in Sacramento I saw in a little over an hour. I had been in the place a number of times before. The distance from where I live is about 96 miles, I believe, and is made on the railroad in about 3½ hours. I was last there 3½ years ago; since then it had improved but little. It is the same shabby, dirty and non-progressive city.

The most striking new building in the place is the new Catholic Cathedral of the Holy Sacrament, built of brick. It is the largest church edifice in the city, and is, perhaps, as fine as any church, architecturally considered, in California. It is 200x170 feet in dimensions, and the spire is 234 feet higher than the top of the dome of the capitol.

The city has electric cars now—but Oakland, Los Angeles, San Jose and San Diego also have them, and San Francisco will in a few months.

Sacramento has some nice gardens and private residences, but they do not compare with those I see where I live, and at Oakland and Berkeley, near home. But then the orange trees in the Sacramento gardens grow larger and produce finer fruit than any I saw in the cities or towns near Oakland or San Francisco. "The city of the Holy Sacrament"—that being the English of Sacramento—has streets that are really shocking. All the main streets have been raised some ten feet, to bring them on a level with the levee, so as to escape being covered with water should the river embankment break in time of a rise in the river near by. In the morning after my arrival the streets were passably fair, save their dingy appearance. Well, after a few hours' rain, they were the dirtiest and muddiest streets I ever saw. And the sidewalks! "They were just too nasty for anything," as the school-girl would say. Unlike the other large cities in this State, Sacramento has not commenced to put down fine roadways and sidewalks. Oakland and San Jose have miles of fine streets—either macadamized or bituminized, with cement or bituminous sidewalks, and all perfectly clean during and after a rain.

Sacramento is no place for bees—that is, I would not keep bees there, though I must say there is one man there—hold on, you're a little too fast—two men. Messrs. Sheehan and McClatchy, who own just two bees between them—the *Daily* and the *Weekly Bee*, and there are no other two bees in the great honey-producing State of California that make as much money (if they do not make honey) as these two bees, especially the former. The *Bee* is a fine evening paper, and is well managed and edited.

At 7 p.m. of Dec. 16, I took the Stockton local, and in an hour and a half, after stopping at several small towns *en route*, I was at the "City of Windmills," or, as it is more recently called, the "City of Flouring Mills," or "Gas Wells." Stockton is 48 miles south of Sacramento, and lies on the old overland road to Oakland. No more overland trains go that way, as they take the airline *via* Benicia and Port Costa.

At the strait of Carquinez the train, with its locomotive, is carried from Benicia to Port Costa on a monster transfer boat, the "Solano." The steamer has four powerful engines working four walking beams, which turn the big paddlewheel. Besides the regular locomotive of the train, a second is taken aboard the boat to move one of the sections of the train. Port Costa is soon reached, and the two sections run ashore, and again the run is resumed to Oakland. But I must get back to Stockton.

This is a prosperous and compact city, of about 15,000 people, located in the lower end of the great San Joaquin Valley, noted for its prodigious wheat-fields. It is no wonder the city is able grind up so much wheat every year. This flour, the output of which is said to be 6,000 barrels daily, is mostly shipped to China and other places beyond the Pacific.

There are other places in the upper San Joaquin where bees do remarkably well, but Stockton is no home for them.

Some of the flouring mills are really large—5 or 6 stories high, and stand near the edge of the Stockton slough, which is an arm of the San Joaquin River. Bigger mills will soon be built.

California has insane asylums in six different parts of the State. The oldest is located at Stockton, and the several buildings are fine brick structures, especially the latest built.

After calling on a few old friends during the day, I embarked on the beautiful stern wheel steamer, "J. D. Peters," and at 5:15 p.m. of Dec. 17, I left the city behind me. It was my first trip on the San Joaquin. The boat is supplied with incandescent lights, and is the finest river boat in California.

At this time of the year the trip is not enjoyable, at least I did not so consider it. For about an hour it was pretty fair; the electric lights of Stockton were fair to behold as they seemed to recede from the boat; the banks of the river were devoid of anything to add to the landscape—in fact, the country—the islands—were all one dead flat.

The islands, all of which, I believe, have been reclaimed from the river or overflowed lands, are very fertile, and make fine gardens. Some of these are cultivated by Chinese, who do not mind the wetness of the surrounding lands as do the whites.

When about an hour down the river we stopped at one island (we made fast to a pile driven in the shore), and took on a lot of sacked potatoes belonging to a Chinese farmer. The boat's crew—that is, the more idle ones—joked and chatted with the Mongolian farmers as the rousters hustled the "spuds" on to the already heavily-laden steamer.

Here I may mention, to show our diversity of industries, that the boat had aboard hundreds of rolls or webs of newspaper from the Stockton mills for the San Francisco *Chronicle*, and bales of paper for paper firms in San Francisco; a couple of hundreds of tons of flour, dozens of crates of chickens; agricultural implements from the several factories; other manufactured goods, and farm products, etc. Stops were made at a few other places. At one place a few tons of great big sturgeons were taken on for the San Francisco market.

At 6:15 a.m. we were in the already busy streets of San Francisco, having made the trip from Stockton in 13 hours. Fifteen minutes later we were leaving the slip of one of the big ferry boats for Oakland, where we would be in 35 minutes.

Thus I was "left" in the convention that was to be. It had been announced in *Gleanings* to be given as stated above, in honor of Professor Cook, who had years ago been a dweller on the banks of the Sacramento. The whole affair looked like a hoax. Surely, it seemed so to me; but I know it could not be laid at the door of the two—Prof. Cook and Mr. Root.

While in San Francisco the Monday following, I stepped into the rooms of the State Board of Trade, where there is a permanent exhibit of Californian products, to see if the Eastern bee-men were there registered as visitors. Disappointment again! I really do believe that the Fates were against me, or that the scientists were taken sick *en route*, and could not reach our fair and golden shores.

North Temescal, Calif.

Do Bees Send Out Scouts?

JOHN D. A. FISHER.

I have read with much interest Mr. G. W. Demaree's article on page 813 (1891). Evidently he does not believe that a swarm of bees sends out scouts to hunt a new home. The writer believes that bees do send out scouts, and that a swarm of bees is often led to a location by the scouts.

The idea that the bees that leave the swarm, after it has clustered, are simply field bees, and have no interest in the swarm, hence they just start right off after stores—the writer cannot so understand it. If this be true, why do the busy little workers mark the new location? Why do they not get their load, and go right back to the old hive? Did you ever see a bee come back to a cluster on a tree, heavily loaded? Have you ever watched the scouts, how they twist and turn, and shake, when they return to the swarm on the limb? Why is it that some scouts sent out by a swarm will persist in finding their comrades? They will often fly around the tree and spot where the cluster was, for several days, while the scouts from another swarm will all return to the parent hive in a few hours. I believe that the scouts that will not give up and go back, have found a new location to which they wish to conduct their comrades. The easily discouraged scouts are those that have not succeeded in finding a new home, hence on returning and not finding the cluster, they go back to their old home early.

I followed a swarm of bees through an open field; they were low down, and going slow. Just before us was a narrow briar thicket, in which stood a large ash tree. When the bees came to the edge of the thicket, they rose right up to the top of the ash tree, and went in the tree. These bees seemed to be about tired out, but were determined to reach their new home. I am satisfied that there were bees in that swarm that knew where the hole in the ash tree was, before they started for the tree.

Another instance: A neighbor of mine, Mr. William Canupp, found, as he thought, a strong swarm in a large snag of a tree; bees flying in and out strong. A few days after this, in passing by he saw a large swarm clustered on a tree close to the snag. He was sure that the swarm came out of the old tree, so he cut the tree down, when, to his surprise, the swarm had not yet entered the tree; or if they had, for some reason they had come out and clustered again. We believed there were scouts among these bees.

Another thing: Does any one think that a swarm of bees really has to fly about in a haphazard kind of way until they in this way find a new location? No, sir; methinks that a kind Providence has given to our beautiful little pets the instinct, or reason enough, that all know just as soon as a swarm has clustered, a new home must be found, and pretty soon some start out on that business. If unsuccessful, the whole cluster will arise and go a mile or more, and cluster, and another search for a home is made, and so on until a home is found. Or they get tired of hunting for one, and build comb just where they are.

Woodside, N. C., Dec. 31, 1891.

Hiving Bees on Empty Combs, Etc.

G. B. H.

I use empty comb, or new comb, for new colonies, as I get better results from them. I have a few colonies of black bees that I keep for building comb. I take the comb from them before they start to fill it with honey, and fill my new hives with the comb. I have no trouble with drones, as one writer stated last year, but, on the contrary, I have good results in honey.

I put a swarm into a new hive where the sections were all filled with comb, and they had no new comb to build. I put them in on June 22, 1891, and took off the honey on July 18, being 39 pounds of nice clover honey. I left off the pound sections, and let the bees fill up the frames, which are 12x16 inches, and 13 of them in each hive. Then I put on the pound sections, and on Sept. 2 I took off 31 pounds of nice, clover honey, and put on the third case, and took it off in October, when I packed the bees. I did not think they had any honey to amount to anything, but I found 21 full, well-capped sections, and the lower frames were all full, each weighing 8 pounds, which would be 104 pounds in the 13 frames taken off, and 91 pounds of honey in the sections, making 195 pounds in all. That is what the colony stored in three months. They did not offer to swarm.

I hived some swarms on starters, and the surplus was, on an average, about 50 pounds of comb-honey in the sections, and about 30 pounds of extracted-honey. I was brought up with bees from a little child. In my younger days it was all box-hives with sticks across in the center; then we would put on caps to get the surplus, unless we destroyed the hive and took it all.

In those days the black bees were all we knew anything about. I used to watch their habits. We used to have them go to the woods, when there would be a rush, for we had from 150 to 200 colonies, but the Italians are not apt to go to the woods. I have not lost a swarm in ten years, and I let them have their own way.

My bees are not as cross as some around here. I can take off a case of sections, and not a bee will leave the hive. I believe that my theory is about right, and that is this: I give the bees the best honey stored, and do not keep them all the time stripped of their honey. I think that this has a great deal to do with cross bees, and also much to do with their going away. Bees are like boys—you make home pleasant for them, and they will love it; if you have good water for bees, plenty of salt, pasturage, clean grounds, and plenty of shade, the bees will stay at home. It is not natural for the bees' home to be in the hot sunshine all Summer. We may control bees to a certain extent, but God gave the little creatures an instinct to know when they are well used.

Calkinsville, Mich.

Do Bees Reason?

H. L. LYNN.

The question properly is, "Do dumb animals reason?" or "Are they governed by fixed laws?" Some draw the line of demarkation between the human and brute at reason, claiming that its presence denotes an immortal existence—that mind is immortal. While I, with others, claim that ability to reason is possessed by part, if not all, animal nature, the difference between the human and animal is in the *amount* possessed, mankind having enough to make them accountable.

That animals receive knowledge without learning from others, all will admit. All will unite in calling this directly imparted knowledge, "instinct." But to limit instinct to animals, and reason to humanity, we object, because we find both in man.

It is by instinct that the infant, when first put to its mother's breast, can so grasp it as to draw nourishment, while its parents can scarcely do as much aided by reason. Likewise, if dropped, it will throw out its little hands to catch, without reasoning of the danger of falling. Thus we find both reason and instinct in the same body—the one has no more effect towards making the possessor immortal, than does the other to make mortal.

If reason makes the human, then the infant, idiot and insane must be excluded from that class. The infant only has the germ, the idiot is blank, and in the lunatic it is dethroned.

Let me briefly offer the following propositions:

1. The brain is the seat of thought. Animals have brains, therefore animals can think.

2. Memory is a faculty of the mind. Bees have memory, therefore have a mind to which it belongs.

3. Instinct has no need of memory, for it would act the same at all times under the same circumstances, for instinct is a fixed law.

4. Memory is evidence of ability to learn (for what the creature remembers, is what it *has* learned). Ability to learn necessitates a mind to receive it. Bees do remember.

5. Bees individually acquire knowledge in addition to that possessed by bees in common, such as lay of landscape, where the flow of honey is, etc. which shows another faculty.

6. Bees have pain, which would be unnecessary if not accompanied by reason, saying, "I must avoid the cause."

7. Instinct is limited to knowledge given at birth, or else God continues to *directly* impart knowledge suited to each changing circumstance. Are we willing to acknowledge that each of our pets possesses an "inner light," or are, in other words, inspired?

8. Bees use *judgment*. Webster says, "Reason is the faculty of judging, or its due exercise." If it can be shown that bees use judgment, our position is proven.

Notice that bees investigate and weigh the advantages of their future home: notice them in swarming time, examine many places before selecting, and select according to their judgment, which is sometimes good and sometimes bad. If selected by instinct, the conditions would have to always be the same.

The workers are divided into classes, each class doing the work to which it is best suited by age and ability. But when there is a deficiency in any class, a new division is made, taking from the stronger and giving to the weaker. Example: When nurses are needed, field-workers take their place. This shows reason, for by instinct they know that their place is in the field, but when needed, will work contrary to natural inclination, when reason shows its importance.

When swarming, a division is made of the inhabitants of the hive, not according to age or fixed rules, for the ragged-winged veteran flies side by side with the untrained wing of youth. After clustering, another division is made, some leaving as scouts to select a home, others remaining.

Brood-rearing is not governed altogether by time of season, or amount of stores. Some breed until all is gone; others will check up until a honey-flow. They first seem to think that there will be a flow in time to save them; the second use more discretion, and study to avoid a famine. One thing is certain, they do not all act by the same rules, as I think they would if instinct was their only guide; but, to the contrary, exercise different judgment.

Glenville, Ky.

Michigan State Bee-Keepers' Convention.

GEO. E. HILTON.

The Twenty-sixth Annual Convention of the Michigan State Bee-Keepers' Association convened at the Eagle Hotel, Grand Rapids, on Dec. 31, 1891 and Jan. 1, 1892, at 2 p.m., President R. L. Taylor in the chair. The President stated that owing to the lateness of trains there was no morning session.

There being no objection, the reading of the minutes of the last meeting was dispensed with. We then had a few minutes recess for the payment of dues, and the reception of members, and then listened to the following address:

The Best All-Purpose Brood-Frame.

Your Secretary asked me to talk about brood-frames, and I consented. never thinking, in my simplicity, that he was to put upon me the task of determining a question which is one of the greatest importance, and one that has troubled many since the time of the invention of the Langstroth frame.

The point has been decided many times, and yet will never be decided. By this I mean that it is not a very difficult task for each one to select for himself the frame best suiting his ideas and requirements, from among those with which he is familiar; and yet no convention of bee-men were ever unanimous upon this point. Although it is a question upon which complete unanimity of opinion will never be reached, yet that which cannot be absolutely decided may be relatively so.

While it would be presumption in me to attempt to decide which may be the best all-purpose frame, I may be excused for trying to point out some of the principles that should be embodied in a good brood-frame.

The most essential principle to be observed in bee-hive construction, it seems to me, is the preservation of a proper bee-space above, between and at the ends of the brood-frames; and, to my idea, the frame best preserving this principle in connection with the simplest construction of body, consistent with the manipulations sought, is the best all-purpose brood-frame. Many assert that the frame at present sold by Mr. Root, in connection with the dovetailed-hive, is much better adapted for general purposes than the older styles of the Langstroth. The difference between the spacing of the old style and new style is shown in the diagram.

The narrower bottom-bar that Mr. Root has recently brought out, is also, I believe, an improvement. We know that bees never build brace-combs between bottom-bars, when properly managed. The combs are more firmly attached to the bottom, and, when removing a central comb, the narrow bar does not roll the bees, or take off the projecting honey on the adjoining combs. I am quite sure this is right, as I have in use, in Vermont, some 2,000 frames with bottom-bars ⅝ inch in width.

The sagging of the top-bars of such a long frame as the Langstroth has always been a trouble, and all sorts of devices of wires and braces have been tried, in the effort to overcome this tendency. Some have even adopted a shorter or different size of frame on this account. Some have used the heroic treatment, and stiffened the top-bar by making it of extra thickness, but not until a short time ago when the Root establishment took hold of it, with their wide influence, did it find any general favor. At the same time the top-bar was made wider, and the correct bee-space was maintained in both directions. Those of us who objected to it, because of so much wood in the brood-chamber, have either been won over, or given up the fight in despair.

This large bar of wood does seem like an objection(!). Is it so, or is it a benefit in disguise? It certainly is preferable to a honey-board, if like results can be obtained.

This longed-for best frame may have either closed or open ends, or be a compromise of both, as in the Hoffman. Any of these varieties may be best for different methods of management, and when that great desideratum, the best method of managemement is discovered, we will have a definite pointer to aid in selecting the best brood-frame.

Certainly, whole or partly-closed end frames are best for that large class of bee-*keepers* who persist in putting either six or ten frames in an eight-frame brood-chamber, and seldom open the hives.

Many still hold that the narrow-end frames are the best, and I am free to acknowledge that I still have doubts as to the great superiority of the Hoffman. While talking of end-bars, I would like to suggest that they be made at least ⅜ of an inch in thickness, so as to hold very firmly when nailed. Otherwise the frames sometimes become diamond-shaped, so that one of the lower corners approaches the side of the hive, and of course is fastened then with propolis; *or*, one of the lower corners warps out towards the adjoining frame, and is there stuck. The extra thickness, necessary to secure firmness, has no material effect upon the comb-surface, and would, I am sure, help in correcting these faults.

Next, the material of which the frame is made, is of some importance. I have seen frames made of whitewood, basswood, poplar, and pine, and I like the pine best, because it is not as much affected by moisture; but there is a difference in pine.

When manufacturing my own frames, as I have always done, I have selected the best material procurable for the purpose. Some pine lumber (depending upon variety, and whether old or young trees, or grown upon upland or swamp), is brittle, and *will* warp. Care and skill should be exhibited by the manufacturer upon this point.

Very great wisdom, or that modern goddess of "Good Luck" must have been with Father Langstroth in his selection of 9⅛x17⅝ as the proper size for a brood-frame. Like the section-box, it should be of some standard size, so far as practicable. The person who, without the most weighty reasons, would invent a bee-hive using any other size of frame than the standard now in use (viz.: the Langstroth), should be told as the boys at the college are fond of saying, "That he had a wheel in his head," which, perhaps, might be turned with a crank.

There are many things in which a common standard is observed by common acceptance, and for common convenience, like the standard gauge for width of wagons or railroad cars, the standard size of lamp-chimney, the standard dollar, and even the standard time.

Much, very much more than we know, would be gained by the adoption of a standard frame, and every bee-keeper should hesitate to adopt a hive holding an odd-sized frame. So very few object to the size or proportions of the Langstroth size of frame, that I believe this could be readily called the standard.

It should be borne in mind, when discussing frames, that because a certain style has not heretofore been used much, is no argument against its good points, and that because the old-style frames have been so generally used is no reason why better ones do not exist.

In conclusion let me say that I believe in the ability of the American bee-keepers to know a good thing when they see it. Therefore, with the view of determining, as far as possible, the extent to which this new-fangled thick, wide, top-bar frame was being used, I wrote to many of the prominent supply dealers whose advertisements I found in a current number of *Gleanings* and the BEE JOURNAL. I received answers from ten of them, and I make pertinent quotations from each with names, that you may be your own judges as to relative weight:

We have no doubt but that the thick top-bar frames are an improvement in several ways; 50 per cent. of our sales this season were for this style—Jno. Nebel & Son.

We have always used the thick top-bars. We tried the broad ones, years ago, with no beneficial results so far as I could see.—D. A. Jones.

We have sold a few hives with thick top-bar frames.—G. B. Lewis Co.

The dovetailed hive with thick wide top-bar is rapidly coming into favor. Our sale of hives with thick top-bar frames is about 50 per cent. on all hives we handle, and we believe will eventually crowd out the other frames almost entirely.—W. T. Falconer Mfg. Co.

Old style frame, 50 per cent.; thick top, 30 per cent.; and Hoffman, 12 per cent. Many who ordered old style early would now order thick-top only—E. Kretchmer.

They are only a passing, harmless delusion. Our sales of these have been about 10 per cent.—Thomas G. Newman & Son.

Two-thirds of our entire sales have been of the thick top.—Leahy Manufacturing Co.

It is unnecessary to quote from the reply of friend Hilton, as he is here, and we all know Mr. Root's position. In Mr. Root's reply he mentioned that they had sold between 15,000 and 20,000 hives fitted with the thick-top frames.

In a multitude of counsel there is wisdom. Let us talk this over freely, respect the opinions of all, and go slow in adopting new things; nor yet be the last to discard the old.

J. H. LARRABEE.

[E. R. Root remarked that he had said so much upon the subject of frames that he did not wish to say any more then, but experience proves that the Hoffman frame was fast coming into favor; also that the thick top-bar had many advantages in a shallow hive.

J. H. Larrabee said that he thought the Heddon frame, as made, sagged.

R. L. Taylor did not, and said that the thick top-bar took up unnecessary room in the hive.

E. R. Root—The top-bar does not take as much space as the old top-bar and honey-board; and with the top-bar as now made, ⅝ inch deep, burr-combs were practically done away with.

M. H. Hunt exhibited a double top-bar frame.

W. Z. Hutchinson said that as near as he could decide, the burr-combs was a matter of spacing, and the secret was more in bee-space, or the width of top-bars.

E. R. Root said that the frame, as shown by Mr. Hunt, had been successfully used in their yard during the past three seasons, both with and without honey-boards.

A. J. Acker said this was the first convention he had attended, but his experience was somewhat extensive. He had in the past been troubled with burr-combs, but was now using the heavy top-bar, and had no trouble.

H. J. Kusig found that when honey was coming in fast, he was apt to get burr-combs with any arrangement, and some colonies were worse than others. He thought that the black bees were worse than the Italians.

W. Z. Hutchinson, R. L. Taylor, and A. J. Acker said their experience was the opposite; the yellower the bee, the more burr-combs. They seemed to want to commence at the bottom and work up.

C. E. Kelly asked: If we use a wide top-bar, do we need a honey-board? The voice of the convention was "No."

The Bicycle vs. the Horse for Out-Apiary Trips.

One of the obstacles in the way of establishing out-apiaries is the expense necessary to make the trips to the yards. That expense usually invovles the keeping of a horse and buggy; and when it is further increased by bad roads for six months in the year (during which time the capital invested in the horse, buggy, barns, etc., are lying idle, to say nothing of the daily labor), it becomes quite a serious obstacle indeed.

I have had experience in the horse business, as some of you may know. I know what it is to have almost impassable roads for six or seven months in the year, during which a horse cannot be driven either for business or pleasure. I know what it is during this time to clean the stable, doctor a horse for mud-fever, for a month or six weeks; I have experienced the lively sensation of being kicked clear across the barn, and then on my back, panting for breath, wondering whether I had a whole bone or not. I have been run away with a couple of times, and know how exhilarating it is to feel that life is hanging on a thread.

I know what it is to have horses get into bee scrapes, having had one killed in one such, as you may remember—a noble animal for which I was offered $175 that very day. I know something of the cost of keeping buggies, horses, stables, etc., in repair. After having had this experience, my ardor in the horse business has gradually waned.

I must make trips to out-apiaries; and to walk to them would be too slow; and to use one of my father's horses—well, they were generally busy at cultivating, or something of the sort, in the garden.

As soon as I sold my last "high-flyer," I forthwith bought a high-grade Safety Victor bicycle; and most of you know the rest. After having ridden it several hundred miles among the bee-keepers of the East, I found it indeed a most serviceable horse for making trips to our out-yards. On arrival at the yard I could leave it leaning against the fence, and not be in mortal terror that the thing would be stung by a bee, and cut up some awful caper.

I am no expert rider, but I found that I could make trips to our out-apiary, seven miles, in about three-quarters of an hour, on an average. When I tried to do something real smart, I rode ten miles into the country, bought an apiary of 80 colonies, returned home, all inside of two hours. As it took me about 20 minutes to complete the bargain, the total time on the road of 20 miles was a little over 1½ hours. But the roads were good.

On other occasions I have rode 30 miles in 3 hours; 45 miles in 5 hours. The latter distance was made over the hills of York State. Now, this, no doubt, may look like a big yarn to some of the uninitiated bicycle riders; but I am stating absolute facts. I do not give these figures to boast, but simply to show what an average man has done with a machine, after a little practice.

Now, then, it will be seen that the bicycle is a great time-saver in making trips to out-apiaries. No horse—at least very few—would undertake to make such time. "But," you say, "such rates of speed must be a severe strain upon the constitution of the rider." Experience in my case proves that it is not, but, on the contrary, a wonderful tonic to the constitution. The muscles of the leg develop wonderfully. But how is it, you may ask, that a man can travel so much faster than the average horse? The cushioned tires, ball bearings, and the gearing, give him an immense advantage over his dumb friend.

Perhaps some bee-beepers will say, "I would have a bicycle if I thought I could ride it." It is no trick at all to balance one's self. Almost any one can be taught to ride in half an hour's time. Even our friend W. Z. Hutchinson, I am told, mastered the machine in 20 minutes; but in order to make speed and cover distance, it takes a little time to develop the muscles, and learn a few nice points in guiding.

"But," your ask, "doesn't riding seven miles to an out-apiary make you awfully tired—in fact, weary—too much so to do a day's work?"

Strange as it may seem, it does not. Riding is one sort of exercise, and working over the hives is another. A different set of muscles in either case is called into action. Most of the care of our out-apiary last Summer devolved upon the writer personally. I have taken a trip down in the morning, worked all day, and came back in the evening, tired, perhaps, a little, but no more so than any one else who has done an ordinary full-day's work.

At other times, when I have had a spare hour or two, I would mount the wheel, run down to the apiary, diagnose the colonies, and give such attention as might be needed to this or that colony, then return after about two hours' work.

Now, the point I am getting at is this: A bicycle can be purchased for less than the price of an average good horse. The repairs might be 15 cents a year; oil for lubricating the bearings, perhaps 15 cents. Outside of that there is no other expense. Place this balance sheet over against that for the expense of a horse, barn, hay, labor, repairs, etc. Now see how your account will stand.

A young man can make the trips to his out-yards on the wheel—yes, make nine-tenths of his trips in that way.

How about hauling the bees home? As a general thing, a farmer in the vicinity, with his double team, can be hired to do the work for you—that is, hauling—for a crate of honey, or a small consideration in money. He can also be hired to haul home your crop of honey, and bring back all the supplies that you may need. With a little forethought all these things can be carried in a few trips.

In the Spring, for hauling the bees to the out-apiaries, if the services of a farmer are not available at that time, a livery may be hired at about $2 a day. Ten dollars ought to cover all the expense of hauling for at least one yard, and possibly two. Even if it cost twenty, this would be a great deal cheaper than taking care of a horse for one year, to say nothing of the other expense, first cost, interest on the money, and other risks.

If you are a bee-keeper and also a farmer, then the horse would be more serviceable. But the point I would urge, in a nutshell, is this: That a young man in a locality where the roads are not sandy, can manage a system of two or three yards cheaper with a good bicycle, supplemented by the aid of a farmer or liveryman, then he could keep a horse, buggy, and all the other paraphernalia connected with the horse business. I have tried the scheme for one year, and I think I know something of what I am talking about.

In conclusion, let me add that I do not advise the use of a bicycle for elderly men. ERNEST R. ROOT.

J. H. Larrabee said that from his experience, the bicycle was much preferable to the horse in the matter of expense, if nothing else. He expected to place 20 colonies three miles from the college next Spring, and should use the wheel to make trips with, and hire some farmer to do the necessary hauling.

APICULTURAL DISCUSSION.

J. P. Berg asked: Is there any way to prevent bees from building combs crooked, aside from using full sheets of foundation? He said that some of his had built their combs crosswise, and attached the combs to the separators.

A. J. Acker had found this to be the result of starters falling down, and said that if too much wax was griped by the fastener, and the wax was left on the top of the section, they would sometimes build two combs in one section.

Geo. E. Hilton wanted to know what objection there was to using full sheets of foundation.

J. P. Berg said that his bees did not thin it down, and his customers objected to so much wax.

J. A. Pearce asked Mr. Taylor if he considered 150 colonies too many in one yard. Mr. Taylor said that he did not, as his largest crop came from a yard of 200 colonies.

J. S. Warner wanted to know why it was that notwithstanding blossoms were abundant, he got no honey. It was thought to be the result of atmospheric conditions.

J. P. Berg said they had abundance of clover, but it produced no honey. Basswood produced honey until a cold rain set in, which ended it.

J. H. Larrabee asked if willow herb grew successfully, year after year, in the same locality.

A. J. Acker said that it had not failed with him in ten years.

R. L. Taylor said that he was in the Upper Peninsula, and he saw a field of oats that was about half willow herb, and the latter seemed to have the advantage; which would indicate that it would stand cultivation.

The President then announced the following committees:

On Exhibits.—J. A. Larrabee, E. R. Root and R. E. Parker.

On Resolutions.—W. Z. Hutchinson, A. J. Acker, and C. E. Kelly.

On Columbian Exposition.—M. H. Hunt, H. D. Cutting, and G. E. Hilton.

BEE MANAGEMENT.

Question by R. L. Taylor: How much time is required, per colony, to care for 150 colonies of bees? His experience was that it required six weeks. Others thought it could not be done in that time. The opinion prevailed that if everything was in readiness, the work of an apiary of 150 colonies could be done in six weeks, but localities and seasons differ.

W. Z. Hutchinson said he was surprised (since he was obliged to do what he once thought would be neglecting them) with what little care they could be managed.

J. A. Pearce thought that conditions must control the length of time; for if the honey-flow continued more than six weeks, the bee-keeper must be there to care for it.

C. E. Kelly said that his experience was that the work could be lessened, and the profits increased, by doubling the colonies up. He had better results from swarms that came out and were returned than from colonies, equally strong, which did not give a swarm.

FINDING QUEENS.

Quite a discussion ensued as to the best means of finding queens, and the plans were nearly as numerous as the members present.

Adjourned to 7 p.m.

[Concluded next week.]

The Language of the Bees.

REV. DR. J. D. MILLETT.

The honey-bees are found among the most intelligent of the insect tribe, and could not, I think, do all the things they do among themselves unless they had some mode of communication to keep up their government.

I have often observed the queen-bee, perched on the center of a section of comb, surrounded by her subjects at a respectful distance, every bee with its head turned toward her, as if in convention assembled, to listen to her. When, finally, the queen would move forward, her subjects would make room for her to pass through them by backing out of her way. I was never able to distinguish any sound, but then they were inside the hive, and I was looking through a pane of glass, and could not perhaps hear, if there were sounds from her.

Outside the hive, however, it has been different. For instance, when the bees return to their hive in the evening, each laden with honey, there is a pleasant hum of satisfaction or greeting made with their wings—I suppose telling of their joy.

But if they are disturbed, or have any apprehension of danger, these sounds are changed to others of sharper tone, which soon brings the colony out in angry mood. Now, these alarm signals are, of course, natural, and easily enough understood; and there would be nothing at all in them if it were not that when those bees, which have chased off the offender, return to the hive, all outside and in who have not, to all appearances, yet learned what the trouble was, return peacefully to their work.

Again, when by accident the colony has lost its queen (she may have been picked up by a bird), there are entirely different sounds coming from the hive. Few, or none, of the working bees go off in quest of honey, but hang around, in and out of the hive day in and day out.

purring in a tone which might be construed to mean sorrow, but if a new queen be placed among them, or a queen-cell taken from another hive be placed in theirs, there is again joy among them, which any one who has listened to the language of bees may readily distinguish. I firmly believe that bees have a language, and a method, at least, if not an actual system of communication.

Holmesburg, Pa.

How a Woman Manages Bees.

MRS. HENRY LOWN.

In the Spring I clipped the wings of all queens that were not clipped. Colony No. 1 swarms. I hive it. No. 1 is queenless. I cut all queen-cells out of No. 1. When No. 2 swarms, I cage the queen and lay it on top of No. 1. The swarm will find their queen, and settle on top of hive No. 1. I move the queen-cage to the front of the entrance. Then they will begin going in. When partly in, I give them their queen. Then war begins; I wet a rag with water, and drop a few drops of carbolic acid on the rag. Then I smoke them in, and push the rag in at one corner of the entrance. This gives them all the same scent, and they are peaceable. I manage all my colonies in this way. I give them plenty of room.

I have 26 colonies, and work one-half for extracted-honey, and the rest for comb-honey. I get the honey, if it is to be had. In 10 or 15 days they will build queen-cells and swarm out; I cage the queen, and lay the cage in front of the entrance; then I cut out all queen-cells.

The swarm then comes back and goes in, and begins to work as if nothing had happened. Sometimes they will build queen-cells, and swarm out the second time; I then cage the queen and cut out queen-cells, when they will come back, go in, and give up swarming. Sometimes I have 3 or 4 swarms a day. As fast as they swarm, I cut out queen-cells, so as to be ready to double up all swarms that come. I had 34 swarms the past season, and doubled up all but one, that I hived. I am 54 years old, and do all the work in the apiary myself. As it has benefited me in managing my apiary in this way, I want others to be helped by it. I found it out by experimenting.

Coin, Iowa.

Packing Bees for Winter, Etc.

J. A. MARSH.

I was hopeful that some one else would point out the mistakes made by Rev. S. Roese, regarding my non-absorbent ideas, on page 485 (1891). But as no one has yet taken my part, I venture to say that many must have noticed how at variance he is when he quotes, and how anxious he is that "children," in this pursuit, "should be seen, not heard," when he says that if the masters of the art have changed their opinions on this subject, we want to know it!

I agree that when one high in his calling makes a sudden and decided change, it makes interesting reading; yet we should endeavor to bring about a change, if they are manifestly wrong. We, though mere boys in experience, may by a little independent thought and trials on theories and practices as taught by the older heads, accomplish that in which they have failed. In fact, we are continually admonished against blindly following our teachers, thereby expecting to attain success. Mr. G. M. Doolittle, than whom few, if any, stand higher, says to the beginner, "Do a little thinking on your own hook."

As a case in point, a beginner to whom I sold a colony of bees, and recommended the AMERICAN BEE JOURNAL and standard apicultural works, aptly remarked, "My bees won't go according to the books." How many have noticed that his bees were so obstinate that at times they trespass all bounds, and utterly refuse to be guided by the books. Yet the books and periodicals are good, very good, indispensable to success, pleasure, and a broad comprehension of our fascinating pursuit; but however good, essential and pleasant they may be, it takes practice, thought, observation and adaptability to make a successful bee-keeper.

But to return: If Mr. Roese will re-examine my article, he will discover that he misquotes when he makes me say, "No packing, only enamel cloth;" when in reality I say that I should prefer no packing, which, taken in connection with what precedes, means simply that I prefer no packing to that which is exposed to moisture from the bees, and which will absorb that moisture; and then I say, "Why not put enameled cloth over the frames, and the packing on top of that?" etc. Yes, I put the cloth on the frames, then fill the section case with forest leaves, then the cover, and *never* have water dripping on the bees to their and my sorrow. In fact, a school-boy ought to know that the enameled cloth alone would be a nuisance. As most schools show a few practical points in natural philosophy, one of the simplest I have seen and tried is this:

In cold weather place a piece of felt or other non-conductor on the outside of a pane of glass in the school-room window, when the room is close and warm, and the air moist from the breath of the pupils; when you will observe that the pane of glass so protected on the outside has very little, if any, moisture on its inner surface, while those around it, and unprotected, are literally obscured with "crazy work" in frost. I will venture to say that Prof. Cook, Messrs. Root, Doolittle, Heddon, and many others not here mentioned, will agree with me.

BUT LITTLE HONEY SECURED.

So far as I know, the past honey season was a general failure, both in quantity and quality, there being only enough white clover honey taken from my yard of 21 colonies to supply my own table. The greater part of the honey taken was a mixture of fruit bloom and other plants that produce dark honey, which I extracted, and enough of which I sold to show a balance of $14.20 in favor of the bees. Then there is a stack of sections filled with honey-dew which I am selling, and, strange to say, after telling my customers what it is, they do not object, but insist that it is good, and pay me 10 cents per pound for it.

I had my first swarm on April 26, last year. About 50 swarms issued during the season, but I doubled up and returned some, lost 6, and increased to 38 colonies, but I have lost 2, which leaves me 36 now, mostly in good condition, and taking a lively flight to-day.

Scotia, Mo., Dec. 23, 1891.

Wavelets of News.

Carefully Bred Bees.

There is a great difference between the worth of bees that have been bred up for many years by a skilled apiarist and those that are in box-hives, that have never given any surplus. I should perfer the former at a good price instead of the latter as a gift.

The Italian bees are superior to the blacks in every way, unless it is capping the honey to show white. I sometimes think this is caused by their working on the Alsike and other plants that the native bees are unable to obtain honey from, on account of their inability to reach it. Probably the honey gathered from the same flowers by each race would show the same.

They are never idle. I have observed them, when taking flights in midwinter, busily engaged in house-cleaning when colonies of natives close by the side of them were only enjoying themselves on the wing. Their marked superiority is more noticeable during poor seasons. Some think that the progeny of cross-bred queens are equal to full-blood Italians. I prefer the pure Italians in every respect, as they cross-breed soon enough with neighbors' bees.—*Stockman.*

Success Depends upon Little Things.

Success in honey producing always depends on an indefinite number of little successes. If we can imagine that our apiary of 100 colonies represents a great plant or factory of 100 hands, every one of them being perfectly drilled and equipped, and capable of performing a certain amount of work, we can see how it is when one to three, or more colonies become demoralized, right at the beginning of a honey-flow. The aggregate business suffers in proportion to the small failures. If we prepare an apiary of 100 colonies of bees of the best strain for the honey harvest, we will have to manage them with more than ordinary skill, if more than 15 per cent. of them do not waste their time and opportunities, sulking in great clusters on the front of the hive, or by indulging in excessive swarming, or refusing to stay anywhere long enough to settle down to business.

Perhaps no apiary can be managed at times so effectually as to wholly prevent loss from the causes I have named, but by the proper knowledge of the nature and habits of bees, this loss can be reduced.—G. H. KIRKPATRICK, in the *Indiana Farmer.*

Good Crop of Honey.

Dr. Budge, of Coleman, Michigan, had 14 colonies of bees last Spring. They stored 1300 pounds of comb-honey, and capped 1230 pounds of it.—*Midland Republican.*

Get a Binder, and always have your BEE JOURNALS ready for reference. We will mail you one for 50 cents.

CONVENTION DIRECTORY.

Time and place of meeting.

1892.
Jan. 27, 28.—N. E. Ohio., N. Pa. & West. N. Y., at Ashtabula, Ohio.
Geo. Spitler, Sec., Mosiertown, Pa.

Feb. 10, 11, 12 —Ohio State, at Cincinnati.
S. R. Morris, Sec., Bloomingburg, O.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Eugene Secor..Forest City, Iowa.
SECRETARY—W. Z. Hutchinson....Flint, Mich.

National Bee-Keepers' Union.

PRESIDENT—James Heddon ..Dowagiac, Mich.
SEC'Y AND MANAGER—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Bees Flying Frequently.

With January Winter commenced here. We had our first snow to-day. My bees are all out in the cold, snugly packed, though. Up to January our bees were not confined ten days without flying more or less, in consequence their winter stores, perhaps, have been greatly reduced. I am pretty sure they have plenty to carry them through all right, however.

D. A. CADWALLADER.
Prairie du Rocher, Ills., Jan. 7, 1892.

Skunks in the Apiary, etc.

My bees were troubled by skunks until I devised a convenient trap, viz.: Dig a hole 2½ feet wide, and 18 inches deep near the place they enter the apiary; lay an empty barrel on its side, and projecting over the hole so far that a slight weight will cause it to fall into it, where it will remain upright. I put a few bits of meat or cheese in the barrel near the bottom. The skunk will soon find it, and his weight will turn the barrel on its end in the hole. (One head is removed from the barrel.) He is caught, and can be carried, if done carefully, a long distance without rousing his ire, or any unpleasant odor. I have found cremation the best way to dispose of skunks when caught. Put some bush around the barrel, wet it with kerosene, set it on fire, and your nearest neighbor need not know you have had so unwelcome a visitor. I used, the past season, equal numbers of the new Dibbern and Little Giant bee-escapes. Both worked very satisfactorily. There was no difference in them. When there is anything better invented, I want to see it.

J. M. DOUDNA.
Alexandria, Minn., Jan. 6, 1892.

Swarming.

1. Which is best, natural or artificial swarming? 2. Will artificial swarming prevent natural swarming? Please answer in the BEE JOURNAL.

AUGUSTUS L. WOODLIFF.
Metropolis, Ills.

[1. While many good, practical apiarists allow bees to swarm naturally, dividing for increase is very desirable, especially when the apiarist cannot be near the bees all the time, and it prevents loss by swarms "taking to the woods," etc.

2. Swarming is often prevented by giving the bees room, by dividing, or by the abrasion of the combs of honey, giving them something to do besides swarming; but after all of these measures have been taken, bees will sometimes have the "swarming fever," which is very difficult to control.—ED.]

Bees Flying too Much.

I fear the bees in this part of New England are not going to winter well. About 5 days out of 7 last month they were on the wing. Hundreds of them get so far from home that the chilly air of nightfall overtakes them, and of course they perish, while thousands of them are wearing out. I have not as yet put the cushions on, but have every thing ready to do so as soon as I think it advisable. Unless the apiarist attends to them early in the Spring, and helps them all he can, they will be too late for the harvest, if they live through the Winter at all. It is hard to tell what to do.

E. S. ANDRUS.
Torrington, Conn.

No Honey from Clover Last Year.

Our loss last Winter was one-third, so we started in the Spring with 50 colonies, good and weak. Now we have 57 colonies in the cellar in fair condition for Winter, providing their stores are good enough to live on, of which I am somewhat fearful. They gave us 150 pounds of comb-honey, 25 pounds being very dark; 500 pounds of extracted, mostly dark. The latter I sold at the bakery at 7 cents per pound, and the comb-honey at 8 and 12½ cents. The cause of our honey crop failure was on account of no nectar being secreted in the clover, and very little in other flowers. The honey-dew saved the bees from starving, but it may kill them in wintering. I must have the Bee Journal whether the bees die or not.

S. J. Church.

Cedar Rapids, Iowa, Jan. 7, 1892.

Three Consecutive Dry Seasons.

In the Fall of 1890 I placed 143 colonies of bees (nearly all Italians) in the bee-cellar; they wintered fairly well, but I lost some that were light in stores. I doubled up the hybrids with the Italians, and began the season with 100 Italian colonies, increased them to 165, and secured 25 pounds of comb-honey, and about 700 pounds of extracted. This is almost nothing by way of getting honey, and certainly is discouraging, but owing to three consecutive dry and very unfavorable seasons in this locality, we have had very light crops of honey. I placed 150 colonies in the cellar this Fall, and they are doing finely so far.

Daniel Whitmer.

South Bend, Ind., Jan. 8, 1892.

Golden-Banded Italian Bees.

I cannot do without the Bee Journal, as I get the views of so many different bee-men, making it very instructive. I have 24 colonies of bees, and I tell you they are 5-banded golden Italians—and they are the best workers of all the bees I ever saw. They are also the prettiest bees, and the yellowest drones I ever saw. They will work on red clover, and if there is any honey to be had, they will have it if they have to steal it. I know they robbed me of 40 pounds of honey after the honey-flow stopped. I purchased 52 warranted queens last year, and they were all just as the queen-breeder represented. I winter my bees on the summer stands, and I have never had any bad luck by wintering them on the summer stands. I think it best, for the reason that every warm day through the Winter they can have a cleansing flight. I pack them about Nov. 15, and then put a pine box over the hives. The past year was a poor one for bees. The black bees will all starve this Winter if they are not fed. The old stock of Italians does not come up with the golden banded ones for honey.

R. D. Davis.

Commercial Point, O., Jan. 8, 1892.

Comb-Honey Manufacturers. (?)

I have just read the editorial on page 38, about the firm in the West that makes artificial honey. I received the same kind of a letter as Mr. Newman's, from the same parties, and requested them to send samples, but I never expect to get them. I do not see what they mean by writing so, unless it is to have mony sent for samples.

J. H. M. Cook.

New York, N. Y.

[We have never had a reply to our request for samples, and cannot understand their object in writing such letters.—Ed.]

How to Handle Bees with Smoke.

After 20 years' experience in handling bees, let me say to the beginner not to attempt it without a smoker in good trim. Go in front of the hive, and blow in the entrance three or four strong puffs of smoke, then rap with the knuckles, or a small stick, half a dozen times, then two or three more puffs of smoke in the entrance; after which remove the cover of the super or hive, and raise the corner of the quilt and puff smoke in from the top, gradually drawing back the quilt or cloth, and cover the sections or frames with smoke. Remember that the reason some of the bees are cross, and will sting is, that they have had no smoke. Be sure that every bee in the hive has been smoked, and you can handle them as you please.

J. I. Brought.

Strode's Mills, Pa.

We Have only two Binders left of the large size, for the Bee Journals previous to last year. If you want one, please send at once, before all are gone. Price, 60 cents.

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☞ As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.

YOU NEED an Apiary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for $1.25; or for 200 colonies for $1.50. *Order one now.*

Supply Dealers desiring to sell our book, "Bees and Honey," should write for terms.

We Club the American Bee Journal and the Illustrated Home Journal, one year for $1.35. Both of these and Gleanings in Bee Culture, for one year, for $2.15.

If You Have any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time.

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

When talking about Bees to your friend or neighbor, you will oblige us by commending the BEE JOURNAL to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the Convention Hand-Book, by mail, postpaid. It sells at 50 cents.

HONEY AND BEESWAX MARKET.

CHICAGO, Jan. 16.—Fancy white comb is selling at 16c.; other grades 10@14c. Extracted slow demand, 6½@7½c. Beeswax, 26c.
S. T. FISH & CO., 189 S. Water St.

NEW YORK, Jan. 16.—Demand is limited, and supply sufficient. No demand for 2-℔ sections. We quote: Comb—Fancy white, 1-lb., 13@14c; off grades, 1-lb., 10@11c; buckwheat, 1-lb., 9@10c. Extracted—Basswood, 7c; California, 7@7½c; buckwheat, 5½@6; Southern, 65@70c ℘ gal. Beeswax, scarce and firm, at 26@28c.
HILDRETH BROS. & SEGELKEN,
28-30 West Broadway.

KANSAS CITY, Mo., Jan. 16.—Demand and supply are fair. We quote: White comb, 1lb., 15@16c; dark, 10@12c. Extracted—White, 7c; dark, 5@6c. Beeswax, is in light supply, and demand good, at 23@26c.
CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI, Jan. 16.—Demand is good for family use, but very slow from manufacturers. Choice white comb, 14@16c. Extracted, 5@8c. Beeswax is in good supply and fair demand, at 23@25c for good to choice yellow.
C. F. MUTH & SON,
Cor. Freeman & Central Aves.

NEW YORK, Jan. 16.—Demand for honey is fair, with adequate supply. We quote: Fancy 1-℔., 14c; do 2-℔., 12c; fair, 10@12c; buckwheat, 9@10c. Extracted—Clover and basswood, 7@7¼c; buckwheat, 5¾@6c. Beeswax, in fair demand, with adequate supply, 26@27c.
CHAS. ISRAEL & BROS., 110 Hudson St.

KANSAS CITY, Mo., Jan. 16.—Demand poor, with large supply of comb. We quote: Comb—1-lb. fancy, 15@16c; dark, 12@13c. Extracted—White, 7@7½c; dark, 5@6c. Beeswax—None in market; light demand.
HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, Jan. 16.—The demand for comb-honey is fair and supply moderate. We quote: Comb, 12@13c; extracted, 7@8c. Beeswax in good supply, and light demand, at 25@26c.
M. H. HUNT, Bell Branch, Mich.

CHICAGO, Jan. 16.—Demand good and sup- sufficient. We quote: Comb, 14@16c. Extracted, 6@7c. Beeswax, in light supply, and good demand, at 25@27c.
J. A. LAMON, 44-46 S. Water St.

MILWAUKEE, Jan. 16.—Demand fair and supply good, except of the best quality. We quote: Comb—choice, 1-lb., 15@16c; fair, 13@14c; dark, 10@12c. Extracted—white, in barrels or kegs, 7½@8c; dark, 6@6½c. Beeswax, 23@28c.
A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO, Jan. 14.—Demand good, supply small. We quote: Comb, 1-lb., 10@14c. Extracted, 5½@6½c. Beeswax, in light supply and good demand, at 23@25c.
SCHACHT, LEMCKE & STEINER,
16 Drumm Street.

MINNEAPOLIS, Minn., Jan. 16.—Demand is moderate, supply ample, and shipments coming in freely. We quote: White comb, 17@18 cts.; dark, 14@15c. Extracted, 10@10½c.
STEWART & ELLIOTT.

CHICAGO, Jan. 16.—Demand is now good, supply is not heavy. We quote: Comb, best grades, 15@16c. Extracted, 6@8c. Beeswax, 26@27c. R. A. BURNETT, 161 S. Water St.

BOSTON, Jan. 16.—Demand is light, supply ample. We quote: 1-℔. fancy white comb, 14@15c; extracted, 6@7c. Beeswax, none in market.
BLAKE & RIPLEY, 57 Chatham St.

ALBANY, N. Y., Jan. 16.—Demand is slow, supply not liberal, as stock is mostly in. We quote: White comb, 12@15c; buckwheat and mixed, 8@12c. Extracted — Light, 7@7½c; dark, 6@6½c. Beeswax—Supply light, and demand steady, at 28@29c.
H. R. WRIGHT, 326-328 Broadway.

NEW YORK, Jan.16.—Demand is light, and supply large, except buckwheat comb. We quote: Fancy white comb, 12@14c; buckwheat, 9@11c. Extracted—Clover and basswood in good demand at 6½@7c; buckwheat ind emand at 5@6c. Beeswax in fair demand at 26@28c.
F. I. SAGE & SON, 183 Reade St.

NEW YORK, Jan. 16.—Demand moderate, and supply reduced, with no more glassed 1-℔ nor paper cartons, 1-℔. We quote: Comb, 1-℔, 14@15c. Extracted—Basswood, 7¼@7½c; buckwheat, 5½@6¼; Mangrove, 68@75c per gal. Good demand for dark extracted honey. Beeswax, in fair supply, with small demand, at 26@27c.
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Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

WANTED—Bee-keepers to send for my price and samples of Comb-Foundation.
JACOB WOLLERSHEIM, Kaukauna, Wis.
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Canadian Bee Journal	1 75	1 65
American Bee-Keeper	1 50	1 40
The 7 above-named papers	6 00	5 00
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Quinby's New Bee-Keeping	2 50	2 25
Doolittle on Queen-Rearing	2 00	1 75
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
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Convention Hand-Book	1 50	1 30
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◆

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◆

When Writing a letter be sure to sign it. Too often we get letters with the name of the post-office, but no County or State. One such came recently, and we looked into the Postal Guide and found there were places by that name in 13 States. Be sure to stamp your letter, or it may go to the dead letter office, in Washington, D. C.

The Honey Almanac

FOR 1892.

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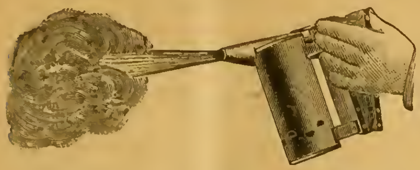

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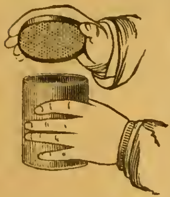

Best Bee-Feeder. Most convenient. Saves feed. No daubing or drowning. Two to seven Feeders full may be given a colony at one time, which will be stored in the combs in 10 hours. Price, per pair, 30 cents; by mail, 40 cents; per dozen, $1.60. Has a sale of 2,000 per month.

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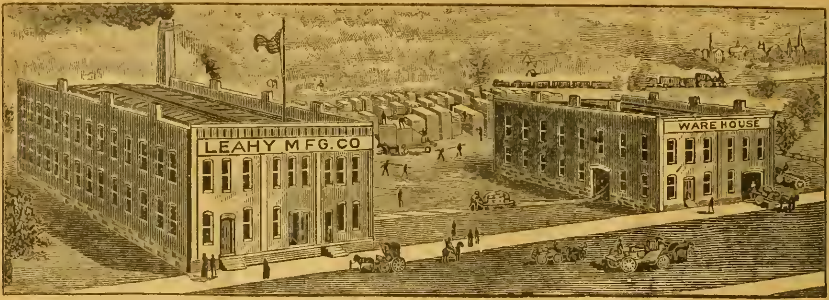

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THOMAS G. NEWMAN,
EDITOR.

Vol. XXIX. Jan. 29, 1892. No. 5.

Editorial Buzzings.

Disappointments and distresses
Oft to mortals will arise,
But they've frequently been proven
To be "blessings in disguise."

Then our aim should be to ever
Find the meaning hidden deep,
Under things that look so doubtful
When at first we at them peep.

Darkest clouds have silver lining;
Sorrow often brings sweet peace;
And experience—life's stern teacher—
From much trouble gives release.
—A. B. JINGLER.

Pure Water is a boon, and we are glad to know that a plan has been perfected whereby Waukesha water may be had on the World's Fair grounds at one cent a glass. A company owning one of the principal springs at Waukesha has been awarded the contract for furnishing the water, which will be piped from that place to Chicago, about 100 miles, and be served at 300 places on the Fair grounds. Plenty of Lake Michigan water will be obtainable free, of course.

Mr. R. Bacon, of Verona, N. Y., who has for many years been a prominent member of the New York State Bee-Keepers' Association, is now unable longer to care for his bees, and has disposed of his apiary. He is one of the pioneers of advanced bee-culture, and socially was a companion worthy of the name. In wishing us "good-by," he writes thus:

> I am now almost 77 years old, and I have kept bees for more than 50 years. In the last 20 years they have averaged about 80 colonies. I have produced a great many tons of honey, but I never had any help in my bee-yard worth mentioning. I have alone done the work in all these years, down to the close of last season; at that time, on account of poor health, I came to the conclusion that I must part with my bees, and last month I sold all of them, 86 colonies, to one man. I think there is no man who has taken the AMERICAN BEE JOURNAL longer, or paid more money for it than I have. It has always been a welcome paper, and read with a good deal of interest.

We regret to part with an old friend, especially one so constant, firm and true as Brother Bacon has been. We trust that his future days may all be pleasant, and that he may live to enjoy many of them.

The Illness reported among apiarists, as well as others, is something appalling. In fact, almost every letter that comes to hand, adds new "tales of woe" to the already large stock heretofore reported. The latest is from J. W. Tefft, of Buffalo, N. Y., who says that *La Grippe* has laid a heavy hand upon him, but he is now improving.

Wm. S. Barclay, of Beaver, Pa., has been in very poor health for three months or more, and was unable to finish packing his bees for Winter, and this may result in a serious loss to him. He has had a partial paralysis of his arms and limbs, but is now reported to be convalescing. At the Centennial in Philadelphia, in 1876, he was one of the chief workers, and we spent many pleasant hours with him.

Grading Honey.—The committee appointed at Albany last month reported, and their grades for honey were adopted. Ex-President P. H. Elwood writes to us as follows about the report as published on page 77:

> The original report was made in pencil and interlined, and it is not strange that a few words were omitted or changed. S. Corneil and J. M. Hambaugh, with others named, were on this committee.—P. H. Elwood.

The report of the committee was not in a condition to be placed into the hands of the printer (as stated by Mr. Elwood), and so it was re-written on a type writer before it came to this office. We printed it exactly as it came into our hands. As Mr. Elwood has kindly copied the original from notes, taken as a member of the committee, we cheerfully give that to the apiarists of the world. The first two paragraphs are the same as that published on page 77, with the addition of two words. The chief difference is in what followed them, as will be seen from a careful perusal of the following:

REPORT OF COMMITTEE ON GRADING COMB-HONEY.

White honey shall be graded in two grades:

The First to be known in the trade as "fancy" or "fancy white," and to be marked "A." It shall be composed of well-filled sections of light-colored honies. One face of each section shall be perfect in appearance, fully sealed except the line of cells touching the wood. The other side of the section shall either be perfect in color and sealing, or nearly so.

The Second Grade shall be known in the trade as "fair to good white," and be marked "C," and shall be packed to meet the requirements of those desiring a good honey, but who care little for outside appearance. It shall be composed of honey thrown out of the first grade, irregular and travel-stained combs, sections not perfectly filled, but yet having but little unsealed honey.

The Third Grade shall be known as "mixed honey," and shall be composed of white honey chiefly, mixed with inferior honey, including buckwheat and Fall flowers, and shall be marked "M." We advise that combs so badly stained as to show the color of saffron be also thrown into this grade.

Buckwheat Honey shall be packed by itself, and be marked "B."

Those bee-keepers sending to market boxes known as "pieces," shall put upon them a private mark of their own. This should also apply to honey-dew, and any other kind not falling in regular grades.

Note.—This report was made with the knowledge that bee-keepers usually stencil their honey with their full address, thus giving the State and locality in which the honey is produced, which is important in judging of quality.

The Ohio State Convention is an important meeting, and should be well attended by the bee-keepers of Ohio, Indiana, and the South. Friend Muth writes us as follows about it:

> The State convention at Cincinnati on Feb. 10–12, promises to be a good one if I may judge by replies to my invitations of a number of friends. A card from Dr. Miller, received this morning, says: "I'm coming." Friend Miller is "all right." The Central Traffic Association of Chicago will give us 1⅓ rates of fare on all railroads leading to Cincinnati, providing we have 100 members here. Everybody buying his ticket for Cincinnati must pay full fare to Cincinnati, and ask the agent for a certificate for the Cincinnati bee-keepers' meeting. This certificate signed by the Secretary of the meeting will insure his return trip at the rate of ⅓ fare. It will be positive on all branches of the Chicago, Hamilton & Dayton railroad, even if we have not 100 members. I shall state rates at hotels at the meeting.

The Golden Banded Italian bees mentioned by R. D. Davis, on page 119, were from the apiary of S. F. and I. Trego, of Swedona, Ills., who are breeders of fine bees, and are also square dealers.

Now is the time to join the National Bee-Keepers' Union. Send to this office for the necessary Blanks.

Here is a Pattern for the Mayors of cities to emulate. On page 154 it is announced that ex-Mayor Ewing attended the meeting of the Wabash Valley convention of bee-keepers, and donated $100 to the association, to be offered as Special Premiums for displays of bees and honey at the next Knox County Fair. Of course the action was "loudly applauded," and arrangements were at once made to obtain a grand exhibition.

Such liberality is quite refreshing, and furnishes a marked contrast to the narrow-minded, oppressive and cruel action of some Mayors we have had occasion to mention in these columns during the past few years. All honor to ex-Mayor Ewing!

◆

Promises are plenty that at the next meeting of the State Board of Agriculture the bee-keepers shall have their proper proportion of the State appropriation for the World's Fair, but the matter seems to "hang fire" considerably. In order to facilitate matters, we would request every bee-keeper in Illinois, at once, to write to his member of the State Board, and see if we cannot bring the matter to a successful termination. The Board meets in February, so there is no time to lose.

◆

The Union.—Concerning the officers for the coming year, Mr. Wm. L. Backensto, of Fort Logan, Colo., writes as follows:

I do not know as a change in the officers of the National Bee-Keepers' Union would be for the best interest of the Union, unless some prominent bee-keepers further West than any of those now holding office were numbered among the Vice-Presidents. I would suggest Mr. Eugene Secor, of Forest City, Iowa, as a candidate for one of the Vice-Presidents. The management, I think, should stay were it is as long as the Manager himself has not expressed a decided wish to be relieved. Of course there is (so to speak) such a thing as 'riding a free horse to death," and I know there must be considerable work attached to the office, and I think it would be no more than right that the Manager should receive some compensation for his labors. I also recognize the fact that I am a very new member, and know but little about a great many things pertaining to apiculture, and consequently should have but little to say, but, notwithstanding, the above management will suit me very well.

◆

Colorado items of interest in the *Field and Farm* are as follows:

The bee-keepers of Weld County have formed an association with D. S. Beall as President, C. Adams Treasnrer, and H. E. English Secretary. A meeting will be held in February next, when Prof. A. J. Cook, of the Michigan Agricultural College, will be present on his return from California. This organization represents about 2,000 colonies of bees.

The northern Colorado bee-keepers held a meeting on Dec. 24 last, at Longmont. H. H. Burch occupied the chair. It was decided that they form themselves into an association called the Excelsior Bee Association. The officers to consist of a President, a Secretary and Treasurer, also an Executive Committee. The annual meeting to be held on the first Wednesday in January of each year. Regular meetings to be held on the first Saturday of each month. The next meeting will be held on the 6th next.

Prof. Quick, of the Agricultural College, estimates that in Colorado there are at the present time 5,198 colonies of bees producing 732,753 pounds of honey annually. He places the increase of bees the last year at 2,000 colonies, with 200,000 pounds of honey to their credit.

◆

We Congratulate Bro. Hutchinson upon the fact that he has now obtained a type-writer. No one will hereafter have to worry over his writing. The type-writer will make it all plain.

◆

This is a "Convention Number" of the Bee Journal. It contains reports of meetings of bee-keepers in four States, but they are very interesting, and will pay for a perusal.

Wisconsin bee-keepers should make arrangements to attend the eighth annual meeting of the Wisconsin Bee-Keepers' Association, which will be held in the Capitol at Madison, on Feb. 4 and 5. The convention will be called to order at 10 a.m., on Thursday, Feb. 4.

The convention occurs in the week the State Agricultural Society meets, and almost all will find something that will encourage and help in the work of the coming year.

There will be the usual reduction of railroad fare to those attending the meeting.

Dr. J. W. Vance, of Madison, is the Corresponding Secretary, and Mr. C. A. Hatch, a progressive bee-keeper, is the President. Those in attendance will learn all about the premiums to be awarded on honey by the association this year.

The following topics are among those that will be discussed: The Compartive Cost of Comb and Extracted-Honey—Bees on Shares—Increase of Combs—Out-door *vs.* Cellar Wintering—Out-door Protection in Spring—Mutual Rights of Bee-Keepers—Production and Sale of Honey—How Bees Gather and Distribute Pollen—What Branch of Fruit-Growing is Best Adapted to Combine with Bee-Keeping?—Hints on Marketing.

The following prominent bee-keepers are expected to be present and speak on the above topics: Ernest R. Root, Medina, O.; B. Taylor, Forestville, Minn.; Edwin Pike, Frank Wilcox, E. France, S. I. Freeborn, Frank McNay, and others.

World's Fair Items are always interesting to all—apiarists as well as others. We therefore give the following general information:

Jackson Park and Midway Plaisance—the Exposition site—are in the south-eastern part of Chicago, and embrace 664 acres, with a frontage of about a mile and a half on Lake Michigan. Forty-five miles of boulevard connect the site with the general park system of Chicago, which embraces fifteen or more parks, aggregating 2,000 acres.

Half a million dollars has already been expended in grading Jackson Park and dredging extensive waterways throughout it. Hundreds of thousands are yet to be spent for landscape gardening, fountains, statuary, pleasure boats, etc. A number of observation towers, from which excellent views of the buildings and grounds can be obtained, will be erected in different parts of the Park.

According to present plans fully 150 restaurants and cafes will be in operation in the various buildings and about the grounds. These will be conveniently distributed, and will have an estimated aggregate seating capacity of 6,000 or 8,000.

Midway Plaisance, connecting Jackson Park with Washington Park, will be occupied throughout its entire length by special Exposition features largely of a foreign character, such as the "Bazaar of All Nations," "Street in Cairo," "Street in Constantinople," "Moorish Palace," "Maori Village," etc., to which concessions have been granted, and which, in their production, will represent the expenditure of hundreds of thousands of dollars. Panoramas, cycloramas, the sliding railway, etc., will also be located there.

A single entrance fee, probably 50 cents, will entitle visitors to see the entire Exposition proper. The special attractions on Midway Plaisance will make a moderate additional charge.

Convention Notices.

☞ The Ohio State Bee-Keepers' Association will hold its next annual meeting at the West-End Turner Hall, on Freeman Avenue, Cincinnati, O., from Feb. 10 to 12 inclusive, 1892, beginning at 10 a.m. Wednesday, Feb. 10. All local associations should endeavor to meet with us or send their delegates. Those intending to be present, will please send their names to the Secretary, at their earliest convenience. The President will endeavor to get reduced railroad rates, and also reduced rates at hotels. The programme will soon be issued, and all particulars published.

C. F. MUTH, Pres., Cincinnati, O.
S. R. MORRIS, Sec., Bloomingburg, O.

HUMAN ENDURANCE.

FLORENCE PERCY.

How much the heart may bear, and yet not break!
 How much the flesh may suffer, and yet not die!
I question much if any pain or ache
 Of soul or body brings our end more nigh.
Death chooses his own time, till that is shown
  All evils may be borne.

We shrink and shudder at the surgeon's knife,
 Each nerve recoiling from the cruel steel,
Whose edge seems searching for the quivering life;
 Yet to our sense the bitter pangs reveal,
That still, although the trembling flesh be torn,
  This also can be borne.

We see a sorrow rising in our way,
 And try to flee from the approaching ill;
We seek some small escape, we weep and pray;
 But when the blow falls, then our hearts are still;
Not that the pain is of its sharpness shorn,
  But that it can be borne.

We wind our life about another life;
 We hold it closer, dearer than our own;
Anon it faints and falls in deathly strife,
 Leaving us stunned and stricken and alone;
But ah! we do not die with those we mourn—
  This also can be borne.

Behold, we live through all things—famine, thirst,
 Bereavement, pain, all grief and misery,
All woe and sorrow. Life inflicts its worst
 On soul and body—but we cannot die,
Though we be sick and tired and faint and worn—
  Lo, all things can be borne!

Queries and Replies.

Best Time of Year to Rear Queens.

Query 803.—What is the best time of the year to rear queens?—T.

Spring, when drones fly.—Dadant & Son.

In this latitude, June.—J. M. Hambaugh.

During the Summer months.—G. M. Doolittle.

From the time drones fly freely till the latter part of Summer.—J. E. Pond.

In the Summer "time." It does not work well in cold weather.—A. B. Mason.

When the weather is warmest, and the honey-gathering greatest.—R. L. Taylor.

I should say May and June, but I have had only a limited experience.—C. H. Dibbern.

When plenty of honey is being gathered. There are several good reasons why.—M. Mahin.

"That depends." The person that knows enough to rear queens successfully, knows just when to do it.—H. D. Cutting.

When the weather is warm enough to not to chill the brood, and when you have plenty of desirable drones flying.—J. P. H. Brown.

The best time is during the honey season. With caution and wise planning and care, any time from May to September will do.—A. J. Cook.

I do not pretend to be authority, but I should think, for most breeders, the swarming season would be best.—Eugene Secor.

That depends upon your locality. When the bees do such work is the best, all things considered.—James Heddon.

During a good flow of honey; usually swarming time. Last year (1890) little, miserable "nubs" of queen-cells were built; this year (1891), fine large ones.—Mrs. L. Harrison.

I suspect that generally the bes queens are reared at the time of natura swarming, but if conditions are made right, I do not see why they might not be reared any time.—C. C. Miller.

With our improved methods of rearing queens, whenever it is most convenient during the active working season. It is not easy to rear good queens before swarming time.—G. L. Tinker.

The best time to rear queens is during the swarming season. But you can rear just as good queens after the swarming season is over, by feeding the cell-building colonies until they feel rich—see? That is the way I do it, when I want to rear queens all Summer—G. W. Demaree.

Queens may be reared at any time during warm weather. The "best time" is probably when the swarming is on, or when honey is coming in freely—but an experienced queen breeder can make the proper conditions at any suitable time.—The Editor.

Topics of Interest.

Michigan State Bee-Keepers' Convention.

GEO. E. HILTON.

(Continued from page 115.)

The following is the essay read by Mr. R. L. Taylor as the

President's Address.

Another year has come, scattering its blessings where it listed, and is gone; and whether it has favored us as we had hoped and desired or not, we may well look, and in no complaining spirit, to discover, if we may, by what rule its largesses have been bestowed, and why our expectations have not been met.

To the country at large its bounties have been unexampled, but to those who pursue that vocation which this convention is met to promote, they have been, we will pretty generally agree, in one point at least, rather meagre. But are we altogether right in our estimate? Are we not too much given to cultivating a feeling of disappointment, that we do not get a heavy crop, rather than to accept an average crop with gratification, or to make the most of a small crop?

Relatively we have of course had a bad year; some have even had no surplus at all, but on the average has the year been necessarily an unprofitable one? I say necessarily, because sometimes one has notions of the profitable character of the venture he is about to engage in, so elevated that he wastes sufficient to make a fair profit.

Once, many years ago, a craze for the production of hops took possession of the farmers in a certain locality near where I lived. Prices were high, the crop in their estimation certain, and so they were impressed with a certainty that inevitable wealth must fall to every one engaging in hop raising. Then naturally the absolute certainty of coming wealth ushered in a feeling that it was already in possession, at farthest the gold was only over the fence in the soil of the hop field, and a little plowing and harrowing in the Spring would secure it, so they were already wealthy, and acted on the assumption. No effort was made to secure a line of retreat. Victory was sure.

Extravagance in the building of hop houses, in laying in supplies for the packers, and for the handling, weighing, drying and packing of the hops, ruled the hour. But the storm came. Insects infested the hops, the quantity, quality and price were all lessened, and bankruptcy overtook well-nigh all of them.

The same thing is illustrated by numerous instances in the pine lumber business. High expectations obscured the necessity of care and economy, and waste kicked the profits out-of-doors, and let in disappointment and failure.

Ruminating upon these things in connection with the business of honey production, the idea suggested itself that perhaps our notions of the status of bee-keeping, with respect to profits and necessary expenses, need readjusting, and that the present series of bad years would be a good time to consider the subject.

It may be, I thought, that we are risking a chance of failure by encouraging fanciful prospects of success which are much too highly colored, so that we become content to calculate that though by the spending of time in the useless manipulation of the bees, and by the purchase of elaborate lines of machinery and supplies, we make the cost of comb-honey 12 or 14 cents, we may yet be sure of a crop large enough so that the difference between those figures and the selling price will yield a good profit. I do not question the prospects of profits in fair seasons with good management, but I wish to call attention to the danger of putting too much reliance on the profits, trusting that they will carry us through, no matter what the seasons are or to what a high point we run expenses.

If one practices proper economy, and thereby keeps expenses down to the lowest reasonable point, he has still no bonanza, to be sure, but a safe, comfortable business. The criterion of expenses should be actual needs, not what it is supposed the business will bear. If we make this latter the test, as the majority are greatly inclined to do, we are all sufficiently optimistic to fall into the fatal error of putting the average yearly production too high, and as a consequence to encounter failure in the end.

Mr. G. M. Doolittle has said that, if capital and labor get their due reward, the cost of comb-honey is 13 cents per pound. It would be interesting to know how he arrived at his conclusions. Did he take the average of the seasons as they are, with him, as a basis? In that case, as the seasons with him average better than with bee-keepers generally, to them the cost would be even greater than to him. Then I would like to know how much of the cost is labor, and how much capital. Maybe he is extravagant with labor.

Not long since, if I remember correctly, he gave it as a reason why he preferred a hive whose frames required handling to one which could be handled in two sections, to accomplish the same purpose, that he enjoyed handling the frames—that he got his pay in fun. It may be that Mr. Doolittle, and some other bee-keepers, may grow fat on fun, but I am pretty sure that our wives and children will not grow fat on the fun that we alone enjoy.

We may well enquire, too, whether he figures in this kind of labor to make up the 13 cents cost, and so is contriving to get full pay from each of two sources. At all events it requires no argument to show that it would not do to permit the cost of honey to reach 13 cents per pound. If it were a necessity to permit it, but few of us would remain in the business.

There is no one but will admit that we should keep the cost down to the lowest possible point, and all would be glad to know what that point is. Of course there must be no extravagance in buildings nor in supplies, and there must be no loss of valuable time.

I have made and submit tentatively some estimates which may at least serve as a stimulus to further calculations, as well as a conclusion to the suggestions I am making. For my figures I have taken 150 colonies as perhaps the average number that could profitably be kept in one place. The expense is made up of what may be called the fixed charges, *i. e.*, those that are the same whether the crop is large or small, and the variable charges, which are made up of those expenses which vary with the amount of the crop. The larger the crop the less of course the cost per pound, and my figures are made so as to bring this out somewhat in detail:

I estimate the value of the necessary plant as follows:

Shop and cellar	$ 300 00
Tools, cases and extras	150 00
150 colonies bees at $5	750 00
Total	$1,200 00

So my table will stand thus:

FIXED CHARGES.

Interest and wear and tear on plant at 10 per cent	$120 00
One man six weeks during honey harvest	45 00
Taking bees into and out of cellar	5 00
Other manipulations	5 00
Total	$175 00

VARIABLE CHARGES.

Cost per each 1,500 pounds of surplus, being an average of 10 pounds:

2,000 sections	$ 7 00
Foundation	10 00
Fastening in foundation	1 00
Putting up sections	1 00
Crates for packing honey	10 00
Packing	4 00
Commissions and freight	17 00
Total	$50 00

Total cost of a crop of 10 pounds on the average, or 1,500 pounds, $225.

For each additional average of 10 pounds there must be added $50, whence we get the following results:

Average per colony—lbs.	Aggregate lbs.	Aggregate cost.	Cost per lb.
10	1,500	$225	.15
20	3,000	275	.0916
30	4,500	325	.072
40	6,000	375	.0625
50	7,500	425	.056
60	9,000	475	.052
70	10,500	525	.05

Taking 15 cents as the market price, a further step gives us the net profit in each case, as follows:

Total crop lbs.	Price.	Total value.	Total cost.	Net profit.
1,500	15c.	$ 225	$225	
3,000	15c.	450	275	$ 175
4,500	15c.	675	325	350
6,000	15c.	900	375	525
7,500	15c.	1,125	425	700
9.000	15c.	1,350	475	875
10.500	15c.	1,575	525	1.050

These figures are far from discouraging, but they speak powerfully for keeping expenses down. In an average location, one who spends 365 days in the year on 150 colonies, cannot expect to get rich; but by making six or seven weeks do, he can make his investment pay well, the difference in the number of colonies in different apiaries, the presence of buildings or cellars that can be used without expense of making special buildings and cellars, and the difference in average yields in different localities makes a great difference in the net cost of honey; yet though our circumstances vary greatly in many ways, we can, nevertheless, by severally calculating the cost in our respective cases, assist one another in putting the business on a more stable basis than it has hitherto occupied.

R. L. TAYLOR.

FIRST DAY—EVENING SESSION.

W. Z. Hutchinson read the following essay on

Trying New Things.

Bee-keepers are considerably given to the trying of new things. A new hive a new variety of bees, a new smoker, or even a new queen-cage is no sooner announced than bee-keepers are ready, some of them eager, to invest their hard-earned dollars.

To a certain extent this may be an evidence of enterprise in another way. It might be called an exhibition of folly, in believing that all *new* things are best.

We live in a fast age. An invention is no sooner made than it is improved upon. It is folly for the bee-keeper, or any one, to ignore these advances. It is only by the use of the *best* that a man can hold his own, in these days of close competition. But in the great mass of new things continually spread out in a tempting way, a man must choose wisely, or the expense and loss of time will outweigh the gain.

To an experienced bee-keeper, a description of an article is often all that is needed, to enable him to decide whether or not he wants it. Sometimes the article is of such a nature that it is impossible to decide in regard to its merits without an actual trial. The bee-escape is an illustration.

Again, an implement may be correct in principle; yet will work only under certain conditions not easily describable; hence, nothing should be accepted nor rejected upon insufficient trial. One of the "besetting sins" of bee-keepers, is that of jumping at conclusions. New things should be tried upon a sufficient scale, and for a sufficient time to be of some value.

New things are often extravagantly praised, particularly by those interested in their sale and introduction. There is always *somebody* ready to try new things, hence it is usually well to await favorable reports from disinterested parties.

But when new things are tried, as I said, let it be on sufficient scale to be of some value, but not upon a larger scale than failure can be afforded.

Upon the recommendation of interested parties, some have introduced new varieties of bees into their apiaries, only to bitterly repent of the act. The trial of a new variety of bees, even upon a small scale, is liable to introduce a taint of blood that it will take years to eradicate. If new varieties of bees are tried, let drone-traps be faithfully used, and the new variety not be allowed to mix with the other bees.

Upon this point of trying new things, I think the old saying in regard to the adoption of fashions in wearing apparel is quite pat. I cannot quote it exactly, but the idea is:

> Be not the first to wear the new,
> Nor the last to lay aside the old.

In closing, I might say that the patenting of an article puts a check upon its too hasty adoption. If a man must pay even so small a sum as $5 for the privilege of making and using an article, it induces him to more thoroughly investigate before adopting it.

On the other hand, a few are prejudiced against patents, and spend their time, money and energy in trying to see how near they can make something like the patented article, and yet evade the patent. W. Z. HUTCHINSON.

President Taylor thought Mr. Root should know something of the new things; both patented and unpatented.

Mr. Root said he had started some things, and some of them had proven failures, and that the views of the Root establishment was considerably modified in regard to patents.

President Taylor thought that many of the new things could be tried with, or in, the mind. He had decided, without trial, that he wanted no self-hiver in his yard. The objection to the self-hivers was the preparing of all colonies, when as a rule we had only one swarm from 3 colonies. He thought that a queen-catcher or trap was preferable to a self-hiver.

Apicultural Discussions.

A. J. Acker described a swarm-catcher made of a wooden rim, covered with wire cloth, that had been successful with him.

President Taylor asked who had tried the bee-escapes?

W. Z. Hutchinson had tried about a dozen successfully.

J. P. Berg had found them a success in comb-honey supers, but they had not been a success with extracted supers. They worked better with him if put on in the morning, rather than in the evening. The bees also left them better when the nights were cool.

J. H. Larrabee thought the escape most valuable in working for extracted-honey, as it prevented robbing, and facilitated the handling of the combs.

M. H. Hunt said that the advantages of escapes with comb-honey was that they avoided the biting of the cappings.

R. E. Ashcraft had tried them on about a dozen colonies, and they had proven a success. The bees were practically all taken out, and the cappings were not molested.

Capt. Wray was a beginner, but had removed honey by setting a small tent over the cases, and clearing them of bees.

E. R. Root wanted to know about the new races of bees.

M. H. Hunt said that he had a yellow Carniolan queen, but had lost her. He then placed a nest of bumble-bees in the cage and placed them on exhibition. These were what some reports said that he paid $80 for.

E. R. Root said they had one Cyprian colony, and they drove the whole family out of the yard. He said there was another new thing, yet old—that of putting starters in sections with a heated metal, and described a machine which they now have for doing it.

Cellar vs. Out-Door Wintering.

A. J. Acker said that he had not found time to prepare an essay, but remarked that he commenced with out-door wintering, packed in chaff, and, while it was not a failure, it was not satisfactory, and he now wintered his bees in the cellar.

J. P. Berg believed that he had as good a cellar as could be made. He wintered some of his bees in the cellar and some in chaff hives out-doors, and while he has never lost a colony outdoors, he invariably lost some in the cellar. His experience was that those wintered in chaff hives were always ready for the honey-flow early in the season. The protection of the chaff hives enabled them to build up faster than those in single-walled hives. His bees wintered in the cellar would dwindle on being brought out in the Spring, while those wintered out-doors were building up.

President Taylor and others gave their plans for carrying bees into the cellar. Fixed frames were a great help in the handling of hives.

E. R. Root said that they had lost less bees by out-door than by cellar wintering.

J. H. Larrabee thought that the temperature in Vermont was lower than it was in Michigan, but he wintered bees in chaff hives successfully.

M. H. Hunt had always wintered his bees in chaff hives, with one exception, and then he had to buy a new stock in the Spring: he had not tried it since.

Adjourned to 8 a.m.

MORNING SESSION—JAN. 1.

After wishing one another "A Happy New Year," the next topic was taken up, beginning with the following essay by Wm. E. Gould:

What Business Can be Profitably Combined with Bee-Keeping?

The title of my essay is a question that is often asked, and seldom answered satisfactorily. I can but little more than give my opinion upon the matter, but that opinion is based on several years' experience.

The first thing to consider is *the man* who is to carry on this business. More depends upon the man than on anything else.

I suppose that friend Hilton had something like this on his mind when he gave me this subject: What business may a successful bee-keeper combine with bee-keeping, and thereby increase his income? Hence, I shall not dilate upon human nature or psychological conditions. We will take it for granted that a successful bee-keeper may successfully perform the work of any other business, for which by education he has the requisite talent. Then the question resolves itself into what business combined with bee-keeping will allow the proper division of time?

Even here we must stop and consider the different conditions as regards bee-keeping, which our imaginary questioner may be in. There are three conditions: 1. Having only a few colonies; 2, having a full apiary: 3, having two or three full apiaries.

To one who is in the first class, I should say you are not combining some other business with bee-keeping; but rather, bee-keeping with some other business. Perhaps you ask, why this distinction? The question which I am to answer presupposes that bee-keeping is the principal occupation, at least during the honey season.

To answer the question, means that we must name some trade or business which will allow this to be possible; or rather, some work which will not require much attention at the time when the bees require attention.

To those who own two or three apiaries, I would say, increase until you have enough bees to keep you busy during the whole year.

But to those who possess only one apiary, this becomes an important question.

To one who resides near a railroad station, and who has the requisite skill and means, the supply business may be profitably combined with bee-keeping. A long article might be written on this subject alone, and I will leave it for you to discuss.

Friend Hilton can tell us whether mason work, carpenter work, etc., can be profitably combined with bee-keeping. What will apply to one will also apply to the other.

Whether mercantile or professional work may be combined with bee-keeping I cannot say, but I am of the opinion that they would conflict — although bee-keeping on a small scale might be combined with them, and pay large dividends in the shape of improved health.

There are three things which I believe may be combined with bee-keeping, namely: Fruit culture, poultry and teaching. With fruit culture there are two objections. The first is that the fruit often needs attention just at the time that we should be busy with the bees. The second is that the Winter months are not provided for in either case. Still an energetic, skillful man may combine fruit culture with bee-keeping, and thus add to his profits.

At present prices for eggs and poultry, there is no doubt that poultry raising may be a source of profit; and certainly it will not conflict with the needs of the bees.

Of teaching, I can speak from several years' experience. I have had no trouble in devoting nine months of each year to teaching. To be sure, the last two seasons have not been a source of profit from the bees; but that is no fault of the teaching. We may work to the best advantage when the school and apiary are in the same neighborhood. When they are in separate localities, only the Fall and Winter months can be devoted to teaching, unless you are blessed with women folks or children who can attend to the needs of the bees. My mother and wife are as competent to care for the bees in swarming time as I am, and perhaps that is why teaching and bee-keeping fit each other so nicely in my case. In addition to the regular apiarian work, I have built up quite a local supply trade.

In conclusion allow me to say that the best thing to combine with bee-keeping is perseverance. WM. E. GOULD.

J. P. Berg--I make my other business pay for my bee-keeping. My principal business is fruit raising, and it often helps out the bees. I find the fruit bloom a great help to the bees, and together they give me Winter employment in preparing for the coming season.

L. C. Woodman said that he was engaged extensively in fruit raising, and found it more profitable than bee-keeping.

H. D. Cutting found that there was more money in poultry raising, and it did not conflict with bee-keeping. A friend of his had 1,200 ducks, and as he was located two miles from water, he kept them in his orchard, and found them very profitable.

Mrs. Delia Croope had found gardening, on a small scale, a success. She held her produce and disposed of it during the Winter months. Mrs. Croope was having trouble with dead brood, the brood died after the wings were formed, and all had their heads towards the center of the combs. The brood remained white, and after it became partially dried up, the bees carried it out. The cause could not be definitely settled, but Mr. Larrabee promised to visit the apiary in the Spring to get specimens, make an examination at the college, and report the results.

The Next Place of Meeting.

Invitations were received from Brighton, Detroit, Battle Creek, Flint, Lansing and Allegan. Lansing was selected on the first ballot.

The election of officers resulted as follows:

President—Hon. R. L. Taylor, Lapeer.

Vice-President—J. H. Larrabee, Agricultural College.

Secretary—Geo. E. Hilton, Fremont.

Treasurer—M. H. Hunt, Bell Branch.

Foul-Brood.

Dr. A. B. Mason not being present, the matter of foul-brood was discussed. It was thought best, if only one or two colonies were affected, to burn them, hives and all; but it can be cured by shaking the bees into new hives on full sheets of comb-foundation.

Bees, Poultry and Fruit.

J. A. Pearce said that he had been sick, and was unable to prepare an essay. He gavd us a very pleasant talk, which was followed by discussions. During the discussion, the following telegram was received:

AUBURNDALE, O., Jan. 1, 1892.
Michigan State Bee-Keepers' Association:
Grip has me. No foul-brood. Happy New Year to all. A. B. MASON.

J. S. Warner asked to have the matter of "spraying" brought up.

J. A. Pearce said that his neighbors sprayed their trees while they were in full bloom, as directed by the pump manufacturers, and his apiary was nearly ruined. It killed both the old bees and brood.

J. H. Larrabee suggested that the poisoned bees be sent to the college, and they would analyze them, and if poison was found in them, it would be a help to the committee on legislation appointed at Albany in getting a law passed to prevent the spraying of trees while in full bloom, inasmuch as it did no good to spray until after the fruit had set.

The Use and Abuse of Foundation.

The intelligent use of comb-foundation has added largely to the pleasure and profit of bee-keeping, and its importance is second only to the movable-frame. The first practical foundation was made in 1874, and the demand has increased so rapidly that at times since it has taxed the world for sufficient beeswax for its production.

In 1878 Prof. Cook said: "We can hardly conceive what an immense business this is soon to become."

During the first years of its introduction, the lack of experience and proper machinery caused a large proportion of poor comb-foundation to be sent out; still it did not seem to affect the demand.

With the fine machines, and the really scientific manipulation of the wax, by the best manufacturers now, there seems little left to improve on. Several attempts have been made to make comb with full depth of cells, but so far they have all been failures, as, no doubt, they always will be. The great bulk it would make, the extra expense, and the greater amount of wax necessary to its construction, all combine to make it undesirable.

Being a manufacturer of comb-foundation, I have been much interested in anything pertaining to it, which has led me to experiment considerable, testing, each season, theories of my own, and the suggestions of others. The results have convinced me that locality, season, and manner of using has so much influence that no two experimenting alike will arrive at the same conclusions.

In my use of foundation in the brood-frames I have been most pleased with full sheets of light brood in wired frames. There is only wax enough, in this grade, to draw out the cells a trifle, giving the bees a chance to utilize the natural secretions of wax that is sometimes lost. Nice, straight, all-worker combs are secured in this way at little expense. Full sheets give more bees a chance to operate, making them less liable to cluster and secrete wax that may be wasted.

By the use of starters only in brood-frames, perhaps the bees will enter the sections sooner, storing a greater proportion of their honey there; but that is not always an advantage. The bees must have a certain amount to winter on, and if forced to put their stores above, and the flow ceases about the time the sections are completed, it necessitates feeding for their Winter supply. With the average bee-keeper, this is neglected sometimes altogether, or until it is too late.

If the queens are not young (and with the first swarms they are not), there will often be drone-comb enough in one hive for the whole apiary.

At first the use of foundation in the sections was looked upon with considerable alarm, but it has grown steadily into favor, until it is now used by nearly all bee-keepers.

Filling the sections full, gives the best results, as it insures better fastening, increases the yield, and adds to the appearance.

Where small pieces of foundation only are used, the work starts but slowly, as a large proportion of the bees have to wait for the increase of surface to operate on. One day is quite a loss during the best of the yield, as the flow we secure our crop from is short at best.

The principal abuse of foundation is the careless manner it is often put into the brood-frames and sections, the sheets falling down, making them worse than useless.

In fastening it in the brood-frames, the sheets are cut to exactly fit the frames, and then the wires are pressed in; then run melted beeswax and resin around three sides. Put in this way, they will do to hive full swarms, or will stand for shipment. To put the melted beeswax and resin on, use a spoon, bent up so as to form a spout on the end; then hold up the frame, and pour so the stream will run around where the comb and frame should join, pouring only sufficient to keep it running, until finished. Never use any resin in putting foundation in sections, as it is almost sure to impart its flavor to the honey.

I have tried a good many devices for fastening the comb in the sections, but a common Parker fastener is better than anything I have yet found.

M. H. HUNT.

J. H. Larrabee asked: Is it right to advise beginners to use full sheets of foundation? This was answered yes, if it is well wired.

Adjourned to 1 p.m.

AFTERNOON SESSION.

J. A. Pearce—Which is preferable, full sheets or starters in sections? The voice of the convention was in favor of using full sheets.

Carniolan Bees.

H. D. Cutting gave us a short address showing his preference for the Carniolans. Very few had experience with them.

List of Members.

R. L. Taylor, Lapeer.
J. H. Larrabee, Agricultural College.
Geo. E. Hilton, Fremont.
M. H. Hunt, Bell Branch.
J. A. Pearce, Grand Rapids.
A. J. Thompson, Grand Rapids.
L. C. Woodman, Grand Rapids.
D. G. Durphey, Grand Rapids.
A. W. Slayton. Grand Rapids.
O. H. Townsend, Alamo.
Capt. Wray, Factoryville.
J. S. Warner, Grandville.
F. W. Wunsch, Lowell.
R. E. Ashcraft, Brookside.
J. P. Berg, Traverse City.
R. D. Parker, Climax.
A. J. Acker, Martiney.
Jacob Moore, Ionia.
J. B. Wilcox, Manistee.
W. Z. Hutchinson, Flint.
C. E. Kelley, Lisbon.
H. J. Kusig, Ravana.
C. E. Cook, Starville.
Julius Tomlinson, Allegan.
H. D. Cutting, Clinton.
Mrs. Delia Croope, Fowlerville.
Mrs. L. C. Woodman, Grand Rapids.

Resolutions.

The Committee on Resolutions reported the following, which was unanimously adopted:

Resolved, That the thanks of this association are due, and are hereby tendered to its officers for the efficient manner in which they have conducted this convention.

To Geo. E. Hilton, for his ardent and unselfish efforts in insuring the success of this meeting.

To the proprietor of the Eagle Hotel, for his many courtesies, especially for so kindly providing, free of charge, such an excellent room in which to hold the convention.

W. Z. Hutchinson,
A. J. Acker,
C. E. Kelley.

Articles on Exhibition.

The following articles were on exhibition:

Honey-jars and frame—M. H. Hunt.
Smokers and honey-knife—T. F. Bingham.
Tool box, etc.—Mr. Wilson, of Manistee.
Hive—Julius Tomlinson.
Foundation fastener, roller—A. J. Acker.
Section former and foundation fastener combined—Mr. Pearce.
Epilobium honey—Geo. E. Hilton.
Sections—O. H. Townsend.

Statistics.

Those handing in reports, gave the following results:

Number of colonies, Spring count, 1,275; in the Fall, 1,490; Italians, 908 colonies; hybrids, 582; wax, 470 pounds; comb-honey, 9,587 ponnds; extracted, 7,662 pounds; colonies on Langstroth frames, 848; on odd frames, 470; wintering in cellar, 692; out-doors, 500.

As many of the friends wanted to leave on the 3 p.m. train, the remainder of the time was given to social talk, and I think all went away feeling that they had had an enjoyable time.

Geo. E. Hilton, *Sec.*

Indiana State Convention.

WALTER S. POUDER.

According to programme, the twelfth annual meeting of the Indiana State Bee-Keepers' Association convened at the rooms of the State Board of Agriculture, on Jan. 8, 1892, with President E. H. Collins in the chair.

On account of the inclemency of the weather, the members came in slowly. The officers were all present except Secretary Thompson, who was obliged to remain away on account of sickness, and Walter S. Pouder was chosen to act as Secretary *pro tem.*

After some preliminary work, the society got down to business, and Pres E. H. Collins delivered a very interesting address. He claimed that the honey crop of the past season was about two-thirds of any average yield, but that the honey was of finer quality than usual; that the market was not overstocked, and that prices were fairly good; that the Fall flow had been satisfactory, and that there was no foul-brood in the State. He also gave the following interesting statistics for the State:

Colonies of bees living, in 1889	127,958
Colonies of bees dying, in 1890 & 1891	34,736
Pounds of honey produced in 1889	737,471
Colonies of bees in 1890	137,000
Pounds of comb-honey, in 1890	936,678
Pounds of extracted-honey, in 1890	107,676
Total number of pounds	1,043,000
Excess of colonies over 1889	9,045
Excess of pounds of honey over 1889	306,205

Mr. Collins spoke of the importance of our industry being well represented at the Columbian Exposition, and the association passed the following resolution:

Resolved, That it is the opinion of this body that the bee-keepers of Indiana should make an exhibit at the World's Columbian Exposition in 1893, and that a committee of three be appointed to act in conjunction with the Indiana Board of World's Fair managers, in carrying out the plan and scope of such exhibit.

In accordance with the resolution, R. S. Russell, W. S. Pouder and E. H. Collins were appointed such committee.

Chas. F. Muth, of Cincinnati, read an essay on "Winter Protection." His strong argument was to have an abundance of stores within easy reach of the cluster, a dry habitation and strong colonies; no chaff hives or cellar wintering for him. He uses the 10-frame Langstroth hive. In October or November the surplus arrangement is removed, also two or three of the lightest combs from the brood-chamber, then the cluster is divided by removing the remaining combs toward the sides of the hive, and the vacant space is filled with combs containing honey.

Mr. Muth's essay was fully discussed as to what is best for covering the brood-chamber in Winter. It was generally believed that boards were better than anything, although a straw mat, sawdust or a chaff cushion on the top of the boards is beneficial. Any upward ventilation is not desirable, especially when chaff cushions are used, from the fact that the difference in temperature makes them act as a condenser, thus they become wet and cold. To have a two-inch space under the brood-frames in Winter was thought to be of no particular importance in wintering on the summer stands, especially if the hives are inclined forward, and the entrances left wide open. To overhaul the bees in the Spring, and place combs containing honey next to the cluster, is superior to stimulative feeding.

G. P. Wilson, of Toll Gate, Ind., read an excellent essay on "Fall Management," which was freely discussed, and many valuable hints were given to the uninitiated. Special stress was placed on the importance of a good queen. It sometimes happens that, after the honey-flow is over, the queen is exhausted, having worked as hard in her capacity as the workers have in theirs, but it was generally agreed that it is best to let the queen alone, as long as she shows no signs of failure. Summer is the time to make sure that they have a good young queen. In the Fall, be sure that they have an abundance of young bees, and a good supply of Winter stores, consisting of honey, or syrup made of granulated sugar.

R. S. Russell, of Zionsville, gave a report of the past season in a way that showed his deep interest in the work. Mr. Russell had learned: 1. That it pays to rear your own queens. 2. A pound of sugar fed to the bees at the proper time will be paid back in at least two pounds of honey. 3. That it pays to equalize the bees throughout the yard previous to the honey season. 4. The best way to exterminate moth is to keep the colonies in a strong and vigorous condition. 5. A good wife is the best helpmate in the apiary. He reported 110 colonies in good condition, and gave figures in showing that the past season had been a profitable one; his bees having averaged about 70 pounds to the colony.

Walter S. Pouder, of Indianapolis, read an essay on "Hindrances to Bee-Culture." The principal points brought out were the importance of economy when embarking in the business—experience is of vast importance to become a successful bee-keeper. In the discussion which followed, several related their blunders, some of the instances being quite comical.

W. S. Pouder talked on how to get bees out of sections, by the use of the Porter bee-escape. It should be placed in position in the evening, and the following morning the honey can be removed without smoke, and without having the cappings gnawed by the bees.

For smoker fuel, E. H. Collins preferred building paper, rolled into a loose cylinder.

R. S. Russell preferred dry corn-cobs.

W. S. Pouder used soft, decayed wood to start with, and then filled the smoker with hard wood.

N. J. Master, of Amo, Ind., made plain his method of transferring from box-hives.

W. S. Pouder demonstrated the importance of having straight combs, and that, year after year, the master of the bee-yard should improve his colonies by cutting out drone-combs and crooked combs, and replacing with comb-foundation. That the solar wax-extractor is a necessity in a well-kept apiary, it being just the thing into which to shave off the cappings, when extracting, etc.

Joe Meyers, of Gray, Ind., gave an excellent talk on "Summer Management." His method was of especial interest to beginners, as he used a 10-frame Langstroth hive to make the demonstration clear. He used a division-board feeder made large enough to contain a float.

President Collins delivered an address on "The Anatomy of the Honey-Bee," which showed that Mr. Collins had been a close observer.

Mr. Manford led a discussion on "The Extractor, and How to Manipulate It." He used the 10-frame Langstroth hive, tiered three stories high, the first and second stories being used for brood. Once in twelve days he thought was often enough to extract.

The committee consisting of R. S. Kitley, R. S. Russell and J. P. Wilson, appointed to nominate officers for the coming year, reported the following, and they were elected :

President—R. S. Russell, Zionsville, Ind.

Secretary—J. P. Wilson, Toll Gate, Ind.

Treasurer—Walter S. Pouder, Indianapolis, Ind.

First Vice-President—Chas. F. Muth, Cincinnati, O.

Second Vice-President—Joseph Myers, Gray, Ind.

Third Vice-President—N. J. Master, Amo, Ind.

Indianapolis, Ind.

Wabash Valley Convention.

FRANK VAWTER.

The Wabash Valley Bee-Keepers' Association convened at the Mayor's office on Thursday, Jan. 7, 1892, in the afternoon. There was a good attendance, and an interesting session. A constitution and by-laws were adopted, and officers for the next year elected as follows: President, Albert Wittenmeyer, Emison, Ind.; Vice-President, S. D. Cox, Washington, Ind.; Secretary and Treasurer, Frank Vawter, Vincennes, Ind.

The afternoon was spent in lively discussion about bees, queens, hives, supers, and other topics of interest to honey-producers.

Ex-Mayor Wm. S. Ewing was loudly applauded when he announced that he would donate $100 to the association to be offered as special premiums for bee and honey displays at the next Knox County, Indiana, Fair. Messrs. Ewing and Wittenmeyer were appointed a committee to confer with the managers of the Agricultural Society on the subject of space, exhibits and premiums at the next Fair. It is the opinion of the bee-keepers that the managers of the Fair can be induced to offer liberal premiums and pay more attention to the bee-products in the future. The next bee-keepers meeting will be held on the afternoon of Tuesday, March 1, 1892.

A vote of thanks was extended to the Mayor, the *Sun*, *Commercial*, and Ex-Mayor Ewing, for favors shown.

The Secretary was instructed to furnish for publication notes to the *Commercial* and *Sun*, to *Gleanings*, AMERICAN BEE JOURNAL, and *Review*.

FRANK VAWTER, *Sec.*

California State Bee-Keepers' Convention.

JOHN H. MARTIN.

The Southern California Bee-Keepers' Association assembled in Los Angeles at 10 a.m. on Jan. 6, 1892. The President and Secretary both being absent, Vice-President McIntyre called the meeting to order, and Mr. J. W. Ferree was chosen Secretary *pro tem.*

About 50 bee-keepers responded to the call, and among the number was Prof. A. J. Cook, Professor of Entomology in the Michigan Agricultural College, and author of a standard work on bee-culture, and lecturer.

Mr. A. I. Root, of Medina, O., editor of *Gleanings in Bee-Culture*, was also present; also J. H. Martin, a bee-keeper recently from New York, now located in Riverside, Calif., correspondent, and well-known to the bee-keeping fraternity as "Rambler."

Poor Honey Seasons and their Cause.

Prof. Cook opened the meeting with the question, "Why do we have poor honey seasons, and what is the remedy for them?"

The discussion of this topic had a wide range, and it was shown that the climatic influences of one season was no guide as to what the next would be. In Ventura County it was stated that an abundance of rain in December, January and February would usually result in a good crop. In San Bernardino, the early rains were not of much account, but late rains were essential. A good rainfall at some portion of the Winter was deemed just as essential for the secretion of honey as for the success in any other derpartment of rural industry.

The convention then resolved itself into an experience meeting, and each man and woman gave their name and the number of colonies, and amount of honey produced. The figures were very interesting, showing that, in spite of the cry of a poor season, many tons of honey were shipped from Southern California, aud that San Bernardino County was not behind other counties in the tons gathered.

The convention then adjourned until 1:30 p.m.

AFTERNOON SESSION.

The meeting was called to order by Mr. Abbott, of Pasadena, who was in the chair.

Bees and Grapes.

The first topic for discussion was, "Do bees bite through the skin of the grape?"

Prof. Cook led the question with remarks upon the mouth parts of insects, and was willing to stake his reputation as an entomologist upon the statement that the honey-bee is structurally unable to bite the smooth skin of the grape. The honey-bee, as a busy fertilizer of the different fruit blossoms, is practically the fruit-grower's best friend. Experiments at the Michigan Agricultural College had demonstrated this over and over again. Thin cheese-cloth was tied over a limb of various fruit trees, upon .which were a hundred or more blossoms, and being deprived of the visits of the bee, there was no fruit, while other positions to which the bees had access were loaded with fruit.

In the discussion which followed, it was shown that at least two-thirds of the bee-keepers present were also fruit growers, and where grapes or berries were picked in season, there was but little danger of damage. It was also demonstrated by Prof. Cook, Mr. Corey, and Mr. Keeney, that the California linnet and the yellow jacket would puncture the grape; after the puncture was made, the bees were ready to rush in in great numbers and suck the juice, and receive the cursing that was really due to the real mischief-makers.

In grape drying it was sometimes necessary to cover the grapes with cheese-cloth, but even then it was only the imperfect grapes that were destroyed.

Mr. Root raised the question of priority of the occupation of the field by the bee-keepers, and claimed that this right should be respected by the fruit-men. Sometimes the question assumes a vexed tone between fruit-men and bee-keepers, but a little reasonable forbearance from both sides would result in great benefit.

It is very evident that a country destitute of bees to fertilize the fruit blossoms, would either be abandoned as a fruit country, or bees obtained to cause it to produce again.

The Spraying of Fruit Trees.

The next subject taken up was the spraying of fruit trees for the destruction of the codling moth.

Prof. Cook gave the result of several interesting experiments. London purple or Paris green (1 pound to 200 gallons of water, and even so diluted as 400 gallons of water), when sprayed upon trees in full bloom, had the effect of killing bees, and even the young bees in the hive. It is also useless to spray trees while the tree is in full bloom, for the moth does not lay the egg in the embryo fruit until the blossom falls. The proper time for spraying is just as the fruit is forming. A rain or a strong wind upon the sprayed blossom will render the spraying inoperative.

The effect of diluted Paris green, as used for spraying trees, had been tried upon sheep, hogs and horses, and without bad results.

Best Bees for Honey Gathering.

The next discussion was upon the best race of bees for honey gathering.

A general discussion ensued, and resulted in the fact that a cross between the Italian and black bee, as a hybrid, was the best honey producer. The black bees were credited with capping their honey the whitest, and some preferred them on this account, as it made a No. 1 product. For extracted-honey the hybrid was the favorite.

The new races—Carniolans, and later the Punics—had not been tried sufficiently for a statement of their value.

Mr. F. H. Hunt raised the question of the vindictive nature of California bees, claiming that they were harder to control than the Eastern bees. He was sustained in this opinion by Mr. Corey, but opposed by Mr. McIntyre and others. It was claimed that a touch of Cyprian blood, or a too rapid and rough handling produced the vindictiveness.

Foul-Brood Among Bees.

The question of foul-brood—a disease dreaded by bee-keepers—was taken up.

Prof. Cook gave much interesting information. The bee-keeper was warned to be very careful in exposing any honey from a colony having foul-brood, as the spores were thus carried from hive to hive whenever the bees, from any reason, had access to it. It had been known to be given to apiaries from leaking packages on freight cars.

To cure a colony having foul-brood, the bees should be run into an empty hive, or a hive having only foundation, the tainted hive being thoroughly boiled in water for 5 or 10 minutes.

EVENING SESSION.

The convention opened with Mr. Abbott in the chair.

Comb-Honey vs. Extracted-Honey.

Mr. Romley suggested for discussion the relative profits or merits in the production of comb or extracted-honey.

Mr. Mellen—Extracted-honey, if off color or taste, can be sold for many purposes; while comb-honey is much more attractive, off color and taste cannot be produced cheap enough to sell at a low price. If of good flavor, amber honey can be sold readily in the comb. One of his colonies produced over 400 pounds of comb-honey. His apiary is in Acton, Soledad Canyon. He was in favor of comb-honey production every time.

Mr. McIntyre tiered up supers as far as possible in running for extracted-honey, or preferred to extract often. He extracted as often as every eight days, and even as often as every five days, or as often as the bees would fill the combs. He preferred extracted-honey on account of the ease in shipping it to market.

Mr. Corey produced comb-honey for four years, and had produced 100 pounds of extracted-honey to 40 pounds of comb-honey. This comb-honey was stored in Harbison boxes, but he preferred to produce extracted-honey. He advised a mixed production.

Mr. Mellen had made a hive to suit himself, about square. Another gentleman had made the same kind of hive.

Size of Sections Preferred.

"What sized sections do you prefer?" was next asked.

Mr. Root said he was the first to introduce the 1-pound section, and was denounced by New York bee-keepers, but afterward they apologized to him and adopted the 1-pound section—4¼x4¼x2 inches.

The point brought out was that comb-honey sold in retail by the section.

To make combs straight, separators are now used.

Mr. Mellen thinks that the 1⅞-inch wide section sells better than the 7 to the foot section, because it weighs a full pound, while a smaller section is short weight.

Mr. Root said that Mr. Heddon originated the light weight section.

Mr. Hart sells his honey in 7 to foot sections, and when used without separators, they weigh a pound each.

Mr. Hunt used 7 to foot, used without separators, and thinks that honey should be sold by the section.

Mr. Root said they sold honey in Denver in sections at 15, 20, 25 and 30 cents per pound, and sold many tons from wagons which run as regular as a milk wagon.

Mr. Hillier uses 7 to foot sections, and gets a pound in each. He stamps his name on the packages, and sells his honey before it is taken from the hive.

Removing Supers in the Fall.

The next question was, "Is it desirable to remove supers in the Fall?"

"Not in California," was the reply by several.

Mr. Romley believed it best to take them off, and keep the bees in the lower part of the hive, as the bees breed up faster in the Spring.

Mr. McIntyre preferred to keep the supers on to prevent the ravages of the moth, which destroy combs in this climate if not protected.

Mr. Corey fumigated the super combs to prevent destruction by moth.

Building up Colonies in Spring.

"What is the best way to build up colonies in the Spring to secure a honey crop?" was next asked.

Mr. Mellen—If the hive is too full of honey, extract the honey, and give the bees empty combs in the brood-nest, thus giving the queen plenty of room.

Mr. Root had known bees to starve in June, unless feeding was resorted to.

Prof. Cook believed in stimulating from day to day, but many times it did not pay, especially unless the bees were sure to obtain early honey. It is well to have a quantity of honey in the hive—it is as good as stimulating. It will not pay to "tuck up" bees as we used to. He favored, in a measure, the Heddon hive, on account of its easy manipulation.

Mr. McIntyre believed in plenty of honey as a reserve power.

Mr. Romley believed in plenty of honey, but he was aware that bees consumed more honey in a large hive than in a small one.

Mr. McIntyre said that a partly starved bee would fly out and become chilled, while a bee with plenty of honey in the hive would stay at home and be comfortable.

Mr. McIntyre equalizes colonies by exchanging both brood and honey.

Prof. Cook said that 32 pounds of honey was enough to winter a colony in the coldest climate, and it is well to have more than enough honey.

The President, Mr. Abbott, was obliged to withdraw, and made very appropriate remarks upon harmony, and the instruction from the Eastern visitors. The convention then adjourned until the following day.

Immediately after adjournment, an association was organized in accordance with a call for the purpose of organizing a State association. J. F. McIntyre was chosen temporary chairman, and Mr. Brodbeck Secretary.

A committee of three was appointed to draw up a constitution and by-laws.

SECOND DAY—MORNING SESSION.

At 9:30 a.m., on Jan 7, a large number of ladies and gentleman assembled in the Chamber of Commerce, with Mr. McIntyre in the chair. The report of the committee, and the reading of the constitution was listened to, and the latter was adopted after some debate and modification.

The constitution as adopted is broad and liberal in its provisions, and cannot fail to have an influence throughout the whole State.

The following permanent officers were then elected; President, J. F. McIntyre, of Fillmore; Secretary, John H. Martin, of Riverside; Treasurer, Geo. W. Brodbeck, of Los Angeles; Vice-President for Ventura County, T. F. Arundell; Vice-President for Los Angeles County, L. T. Romley; Vice-President for San Bernardino County, F. H. Hunt; Vice-President for San Diego County, J. A. Odell; Executive Board, J. W. Strong and Allen Barnett.

A recess was then taken, and an opportunity given for those present to sign the constitution, and become members. The result was extremely gratifying, as 37 gentlemen and 8 ladies signed their names.

Upon motion of Mr. Romley, Prof. Cook and Mr. and Mrs. A. I. Root were unanimously elected honorary members.

AFTERNOON SESSION.

At 2 o'clock p.m. a letter was read from the World's Fair Committee, in relation to the needs of the bee-keepers in the forthcoming World's exhibit in Chicago. The Executive Board was appointed to confer with them.

National Bee-Keepers' Union.

Prof. Cook then presented the claims and benefits of the Bee-Keepers' Union in such a happy and forcible manner that 13 persons handed in their names and their dollars to become members.

Any person can become a member by sending direct to the Union, or through the Secretary of the California State Bee-Keepers' Association.

Prof. Cook then gave a lecture upon the anatomy of the honey-bee, describing the wonderful mechanism of the legs and their office in cleaning the antennæ, and securing pollen; also the functions of the stomach and interior organs.

Mr. Root followed with remarks upon things he had observed while upon his travels, after which the convention adjourned to meet in Los Angeles at a time to be fixed by the Executive Committee.

The sessions throughout were characterized by harmony and good feeling, and the organization of a State association starts out with every assurance of success. JOHN H. MARTIN, *Sec.*

A Nice Pocket Dictionary will be given as a premium for only **one new** subscriber to this JOURNAL, with $1.00. It is a splendid little Dictionary—just right for the pocket. Price, **25 cents.**

CONVENTION DIRECTORY.

Time and place of meeting.

1892.
Feb. 4, 5.—Wisconsin State, at Madison, Wis.
Dr. J. W. Vance, Sec., Madison, Wis.

Feb. 10, 11, 12—Ohio State, at Cincinnati.
S. R. Morris, Sec., Bloomingburg, O.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Eugene Secor..Forest City, Iowa.
SECRETARY—W. Z. Hutchinson....Flint, Mich.

National Bee-Keepers' Union.

PRESIDENT—James Heddon ..Dowagiac, Mich.
SEC'Y AND MANAGER—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Bees Wintering Well.

Bees are doing well here. We have had but little cold weather this Winter, yet we have had some that was extremely cold. Owing to sickness, our bees suffered for want of care the past season, still they gave us a large increase, and much honey. Most hives have a surplus which should have been taken last Fall. I put 130 colonies into winter quarters, and at present have 124.

T. P. Williamson, my father, died on Jan. 8, 1892, after 6 months of severe suffering, caused by a carbuncle.

ROLLIE C. WILLIAMSON.

Golconda, Ills., Jan. 16, 1892.

Keeping a Diary—Honey-Dew.

My bees did fairly well the past season. We never get large yields, but are pretty sure to get a paying crop every season. If a farmer can add to his income $100, $200, or $300 by keeping bees, and not neglect his farm, he should do so. There is pleasure, excitement and variety in this pursuit, which helps out the monotony of farm life. I intend to keep a diary the coming season, and shall note the system of management with its failures and successes. The weather will be noted with all its changes. At the end of the season I shall sum up the lessons learned, which will be a good guide for the next season's operations. If I should sell all the honey I produced the past season from 47 colonies, Spring count, it would net me $300. Please answer the following questions:

1. Did you ever hear or know of honey-dew mixed with good honey, in comb and extracted form, being entered for competition and a prize at a State Fair?

2. Acting as judge, what would you do with this kind of an entry?

3. If this kind of honey is sold in our markets, what grade should it have?

N. P. ASPINWALL.

Harrison, Minn.

[1. No. We never heard of such a thing. Any one of ordinary sense would never attempt to enter honey-dew for competition at a honey show.

2. We should ignore such an entry entirely.

3. The grade of public condemnation. —ED.]

Milkweed as a Honey-Plant.

I am very glad to be able to say that the milkweed does not act here in the way described on page 86. I presume the editor has given the correct reason, or reasons, for its not doing so. I have occasionally seen a bee held fast by one foot to the sticky pollen-mass, but have never seen a dead one thus. So I concluded that they all got loose. I have quite often seen them carrying the pollen-masses on their feet; and occasionally have seen quite a lot of them at the entrance to the hive where they had been scraped off. We consider the quality of the honey the best of any; though some do not like it. I wish to correct one error in my last. It was in 1884 instead of 1882, that we had such a good honey season.

C. A. MONTAGUE.

Archie, Mich., Jan. 18, 1892.

Honey Poorly Marketed.

I never saw honey so poorly handled and marketed as here. It is bought at the groceries just as it came from the hive with all the propolis on. Dealers, who seem to think it fine honey, pay 10 cents per pound for it, and then sell it for 15 cents. The consumers do not seem to understand honey, they buy it, and finding it poor stuff, throw it away, and then condemn all kinds of honey. No wonder grocery men say they have all they can handle. Yet, what is to be done? Bee-keepers are too slow to attend conventions, and they even do not read anything on the subject of bees. The honey dealers are too stubborn and conceited to receive advice or instruction regarding honey, so our fine honey has to sell at the same price as the poor grades. The consumers, it seems to me, are the only ones we can reach here, and they should be taught to use the clear white and sweet smelling honey as produced by our best bee-keepers, instead of that which is unsightly and unfit to eat by reason of the propolis all over it. Worthy bee-keepers would then have some encouragement.

S. M. Carlzen.

Montclair, Colo.

Another Victim of La Grippe.

Baxter C. Griffith, one of our brightest young apiarists has joined the great majority. His illness was short—only eight days, from *La Grippe* followed by pneumonia. The only child of aged parents; the father of five lovely girls, and the owner of a large apiary, with no one left to manage it—all go to make his death a peculiarly sad one. His place in church, in state, in apiculture, and in society, will be hard to fill. He was a bee-keeper of only a few years, but by his untiring efforts, and the knowledge gleaned from his many text books and journals, it is safe to say he was well advanced in the art of bee-keeping. He was a consistent member of the A. R. P. church, and his pastor's loss is hardly second to that of his family. To his bereaved wife we can only tender our sympathy, and point her to Him who does all things well.

A Friend.

Pineville, N. C.

Well Pleased About Last Season.

I commenced the last season with 25 colonies of bees, but many were weak and short of stores. In the Spring and Summer they did well, but in the Fall they did nothing. It was too dry. They gathered 550 pounds of honey, and put it into the sections, which I sold at 15 cents per pound; and they increased to 32 colonies, but they are not in the best of condition. I am well pleased with the results of the season. Last May the little son of one of my neighbors got stung, and it was charged to my bees. Complaint was made to the village authorities that my bees were a nuisance, and I was threatened with a suit for damages. A committee of three of the Village Board waited on me, and as I did not want any trouble, I promised to remove my bees after the season closed, and so the matter rests. There are other bees in the village, but no complaints have been made about them. My bees are now in the cellar. I think of removing them outside of the village in the Spring, if I do not sell them.

J. Seibold.

Homer, Ills.

Bee Paralysis.

I have a strong colony of black bees that seem to be dying very fast, sometimes at the rate of a teacupful in three or four days. They seem to come out of the hive and act as if they had the palsy. They have plenty of good honey, nicely sealed and ripened. Can you explain the cause or remedy, so that I can prevent the ravages of the disease, if it is one? All other bees in this neighborhood are in good condition, and doing well.

J. B. Ramage.

Blaine, Wash.

[The following treatment for bee paralysis is recommended by Mr. R. L. Cobb, of Matsqui, B. C.:]

I had a colony very badly affected with it, and the following treatment cured them completely in four or five days: Take a small cotton cloth about 6 inches long, and put on one end of it a few drops of carbolic acid; shove the end into the entrance of the hive, leaving the other end out so that it can be easily withdrawn. Renew the acid night and morning until cured.

Standard Section, Grading Honey, etc.

I have 36 colonies of bees in winter quarters, and they are wintering well. Last Winter the bees wintered so well that I am afraid bee-keepers have been too careless here this Fall, and have not fed the bees, but they will repent when it is too late. I look for a heavy loss of bees here this Winter from starvation. Most of the bee-keepers here have too much other work to take proper care of their bees. All bee-keepers in this vicinity work for comb-honey, and the dovetailed hive is coming into general use here. I think it is the coming hive on account of its cheapness and strength, as well as its hardiness. I am in favor of adopting a standard size of section, and that size to be the 4¼x4¼x1⅞, and the 7 to the foot. Two widths I believe to be sufficient, and the above sizes seem to suit retailers and consumers in general. We have to suit those who buy our product, as well as ourselves. Of course, there are a great many who would not change, as the cost would be too great, but it would help those that are just starting, or those buying large quantities of hives, to have a standard size of section. The AMERICAN BEE JOURNAL should be taken by every bee-keeper. A person who cannot afford to take it, cannot afford to keep bees. There are many old fogies that keep bees, and that is the reason why honey is so cheap—because they obtain a poor article, and then take whatever they can get for it. I think that having honey graded is a good thing.

WILLARD A. SAUL.

Denison, Iowa, Jan. 16, 1892.

◆

Experimenting with Albino Queens.

On Aug. 14, 1891, I introduced five Albino queens in my apiary. Three of the queens that I superseded were less than four months old; two were over two years old—daughters from the old queens, and disappeared by Oct. 15. From the three young queens there were plenty of daughters that were put into winter quarters with the Albino colonies. Is it possible that bees from a young queen will live longer than those from an old queen? In the above case such is the fact. As I noticed this by changing queens, I will experiment with the same next year, as I am breeding Albinos and Italians. If any person wishes to experiment with the same, he can do so with Italians, hybrids and blacks, and from my observation of the facts, I think it is worth the experiment.

THOS. JOHNSON.

Coon Rapids, Iowa.

◆

The Mating of Queens.

I want to know how far virgin queens leave the hive to meet the drones. From my experience with young queens the past Summer, fertilization takes place near the home of the queen. In my locality no one has Italian bees but myself. There are black bees all around me, from one-half mile to further away. I also had one colony of black bees in my yard. Under the above circumstances all my young Italian queens were purely mated except two. This proves to me that young queens mate near the hive, or else the Italian drones are more active, stronger, and ever on the alert. But there is something connected with the above that puzzles me, and that is, I find that a good many young queens owned by the neighbors as far as a mile away, mated with my Italian drones, right where there was nothing but black drones. Will some one please explain in the AMERICAN BEE JOURNAL why a large percentage of my neighbors' young queens mated with my Italian drones? Only two of my young Italian queens were met by black drones when they were around in such abundance.

JOHN D. A. FISHER.

Woodside, N. C.

◆

Colonies Short of Winter Stores.

My bees are in the 2-story simplicity hives. They gathered honey-dew very fast the past season, filling both stories. I extracted all in the upper stories, thinking that I would get a lighter quality of honey, but I was mistaken, as it was all dark. The honey from asters was but a little lighter than the rest, and but little different in the taste, The honey is not unpleasant to eat—I prefer it to last year's crop. When I took the frames out of the upper stories, I did not lift up any of the lower frames, but took it for granted that they had an abundance of honey to winter, as all, or nearly all, had the combs at the top of the frames sealed over. As I winter my bees on the summer stands, and just before the weather becomes severe I commenced packing them, and then for the first time I discovered they were short of stores. I commenced feeding, but it was too late to save all. I have lots of frames full of honey, but cannot get it to the bees. The weather is so cold that I have already lost 4 colonies. I had 45. They gathered between 1,500 and 2,000 pounds of honey the past season.

JOSEPH DUNBARR.

Scott's Mills, Ills., Jan. 18, 1892.

◆

Winter Problem in bee-keeping; by G. R. Pierce, of Iowa, who has had 25 years' experience in bee-keeping, and for the past 5 years has devoted all his time and energies to the pursuit. Price, 50 cents. For sale at this office.

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☞ Send us *one new* subscription, with $1.00, and we will present you with a nice Pocket Dictionary.

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☞ As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.

YOU NEED an Apiary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for $1.25; or for 200 colonies for $1.50. *Order one now.*

Supply Dealers desiring to sell our book, "Bees and Honey," should write for terms.

We Club the American Bee Journal and the Illustrated Home Journal, one year for $1.35. Both of these and Gleanings in Bee Culture, for one year, for $2.15.

If You Have any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time.

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

When talking about Bees to your friend or neighbor, you will oblige us by commending the BEE JOURNAL to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the Convention Hand-Book, by mail, postpaid. It sells at 50 cents.

HONEY AND BEESWAX MARKET.

CHICAGO, Jan. 23.—Fancy white comb is selling at 16c.; other grades 10@14c. Extracted slow demand, 6½@7½c. Beeswax, 26c.
S. T. FISH & CO., 189 S. Water St.

NEW YORK, Jan. 22.—Demand is limited, and supply sufficient. No demand for 2-℔ sections. We quote: Comb—Fancy white, 1-lb., 13@14c; off grades, 1-lb., 10@11c; buckwheat, 1-lb., 9@10c. Extracted—Basswood, 7c; California, 7@7½c; buckwheat, 5½@6; Southern, 65@70c ℘ gal. Beeswax, scarce and firm, at 26@28c.
HILDRETH BROS. & SEGELKEN,
28-30 West Broadway.

KANSAS CITY, Mo., Jan. 23.—Demand and supply are fair. We quote: White comb, 1lb., 15@16c; dark, 10@12c. Extracted—White, 7c; dark, 5@6c. Beeswax, is in light supply, and demand good, at 23@26c.
CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI, Jan. 22.—Demand is good for family use, but very slow from manufacturers. Choice white comb, 14@16c. Extracted, 5@8c. Beeswax is in good supply and fair demand, at 23@25c for good to choice yellow.
C. F. MUTH & SON,
Cor. Freeman & Central Aves.

NEW YORK, Jan. 23.—Demand for honey is fair, with adequate supply. We quote: Fancy 1-℔., 14c; do 2-℔., 12c; fair, 10@12c; buckwheat, 9@10c. Extracted—Clover and basswood, 7@7¼c; buckwheat, 5¾@6c. Beeswax, in fair demand, with adequate supply, 26@27c.
CHAS. ISRAEL & BROS., 110 Hudson St.

KANSAS CITY, Mo., Jan. 23.—Demand poor, with large supply of comb. We quote: Comb—1-lb. fancy, 15@16c; dark, 12@13c. Extracted—White, 7@7½c; dark, 5@6c. Beeswax—None in market; light demand.
HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, Jan. 23.—The demand for comb-honey is fair and supply moderate. We quote: Comb, 12@13c; extracted, 7@8c. Beeswax in good supply, and light demand, at 25@26c.
M. H. HUNT, Bell Branch, Mich.

CHICAGO, Jan. 23.—Demand good and supsufficient. We quote: Comb, 14@16c. Extracted, 6@7c. Beeswax, in light supply, and good demand, at 25@27c.
J. A. LAMON, 44-46 S. Water St.

MILWAUKEE, Jan. 23.—Demand fair and supply good, except of the best quality. We quote: Comb—choice, 1-lb., 15@16c; fair, 13@14c; dark, 10@12c. Extracted—white, in barrels or kegs, 7½@8c; dark, 6@6½c. Beeswax, 23@28c.
A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO, Jan. 21.—Demand good, supply small. We quote: Comb, 1-lb., 10@14c. Extracted, 5½@6½c. Beeswax, in light supply and good demand, at 23@25c.
SCHACHT, LEMCKE & STEINER,
16 Drumm Street.

MINNEAPOLIS, MINN.. Jan. 22.—Demand is moderate, supply ample, and shipments coming in freely. We quote: White comb, 17@18 cts.; dark, 14@15c. Extracted, 10@10½c.
STEWART & ELLIOTT.

CHICAGO, Jan. 23.—Demand is now good, supply is not heavy. We quote: Comb, best grades, 15@16c. Extracted, 6@8c. Beeswax, 26@27c. R. A. BURNETT, 161 S. Water St.

BOSTON, Jan. 21.—Demand is light, supply ample. We quote: 1-℔. fancy white comb, 14@15c; extracted, 6@7c. Beeswax, none in market.
BLAKE & RIPLEY, 57 Chatham St.

ALBANY, N. Y., Jan. 22.—Demand is slow, supply not liberal, as stock is mostly in. We quote: White comb, 12@15c; buckwheat and mixed, 8@12c. Extracted — Light, 7@7½c; dark, 6@6½c. Beeswax—Supply light, and demand steady, at 28@29c.
H. R. WRIGHT, 326-328 Broadway.

NEW YORK, Jan. 22.—Demand is light, and supply large, except buckwheat comb. We quote: Fancy white comb, 12@14c; buckwheat, 9@11c. Extracted—Clover and basswood in good demand at 6½@7c; buckwheat ind emand at 5@6c. Beeswax in fair demand at 26@28c.
F. I. SAGE & SON, 183 Reade St.

NEW YORK, Jan. 23.—Demand moderate, and supply reduced, with no more glassed 1-℔ nor paper cartons, 1-℔. We quote: Comb, 1-℔, 14@15c. Extracted—Basswood, 7¼@7½c; buckwheat, 5½@6¼; Mangrove, 68@75c per gal. Good demand for dark extracted honey. Beeswax, in fair supply, with small demand, at 26@27c.
F. G. STROHMEYER & CO., 122 Water St.

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Calvert's No. 1 Phenol, mentioned in Cheshire's Pamphlet on pages 16 and 17, as a cure for foul-brood, can be procured at this office at 25 cents per ounce, by express.

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The 7 above-named papers	6 00	5 00
and Langstroth Revised (Dadant)	3 00	2 75
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Heddon's book, "Success,"	1 50	1 40
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The Lever (Temperance)	2 00	1 75
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Farm, Field and Stockman	2 00	1 75
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Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

If You Want to know how Queens are fertilized in upper stories, while an old Queen is laying below—how to *safely introduce* Queens at any time when bees can fly—all about different bees, shipping Queens, forming nuclei, multiplying or uniting colonies, etc.—send us $1.00 for "Doolittle's Queen-Rearing;" 170 pages; bound in cloth, and as interesting as a story.

When Writing a letter be sure to sign it. Too often we get letters with the name of the post-office, but no County or State. One such came recently, and we looked into the Postal Guide and found there were places by that name in 13 States. Be sure to stamp your letter, or it may go to the dead letter office, in Washington, D. C.

Trip-Hammer advertising is the kind that creates industries that make us marvel at their magnitude. How long would it take to shape the hot iron if a stroke was given this week and another six months hence? Constant pounding is what does the business.—W. F. Cook.

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The Convention Hand-Book is very convenient at Bee-Conventions. It contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee-Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with Subjects for Discussion. In addition to this, there are about 50 blank pages, to make notes upon, or to write out questions, as they may come to mind. They are nicely bound in cloth, and are of the right size for the pocket. We will present a copy for one new subscription to the Bee Journal (with $1.00 to pay for the same), or 2 subscribers to the Home Journal may be sent instead of one for the Bee Journal.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

WANTED—Bee-keepers to send for my price and samples of Comb-Foundation.
JACOB WOLLERSHEIM, Kaukauna, Wis.
1Atf

FOR SALE—Twelve barrels of choice extra Early Seed Potatoes. Cheap. Address,
5A3t WM. H. FORD, Marshalltown, Iowa.

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5Atf 318 Swan St., Buffalo, N. Y.

WANTED—To exchange Bees, Honey and Supplies for Cash or Tinners' Tools.
J. A. BUCKLEW, Warsaw, Coshocton Co., O.
5Atf

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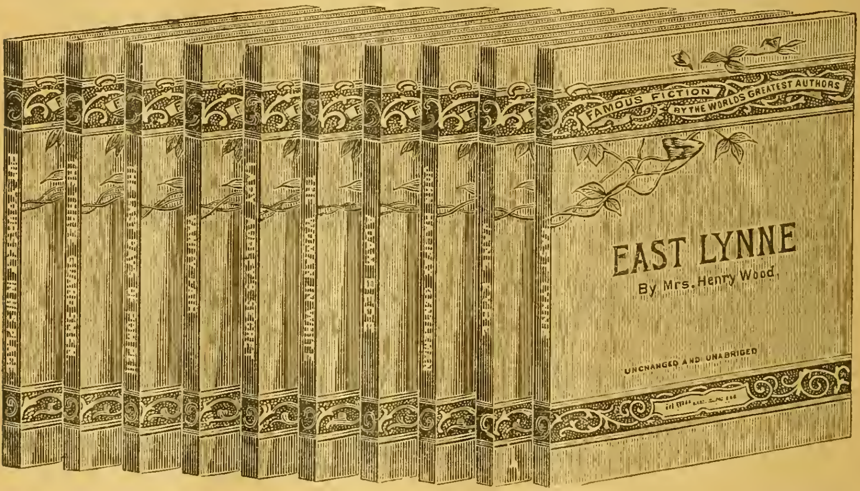

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THOMAS G. NEWMAN,
EDITOR.

Vol. XXIX. Feb. 4, 1892. No. 6.

Editorial Buzzings.

The Bird and Bee
Sing to the blossoms, and their minstrelsy
Calls forth the queenly rose.

We are Glad to note that the health of Mr. A. I. Root is improving. The trip to California is doing him good.

John H. Martin, who writes over the *nom de plume* of "Rambler," now has settled down near Riverside, Calif.—the land of oranges. He has an apiary of 200 colonies of bees. His former residence was Hartford, N. Y.

Snow is a necessity for the preservation of young clover during the Winter. This Winter we have had more than for two or three Winters past. This fact augurs well for a honey crop next Summer.

Much Space is given in this week's issue to the supposed grievance of our Canadian brethren. There is no doubt but that they have acted hastily and very unwisely.

Our English brethren are going to law over the Punic bees ; at least it is so stated in the London *Journal of Horticulture*. We think that it is a very foolish piece of business to do so—but, perhaps, they have some money to throw away, and "going to law" will afford them an excellent opportunity to do it.

The Breeder and Fancier is the name of a new periodical devoted to poultry, bees and pets, issued at 50 cents a year by W. B. McDermut, Bellevue, Nebr. It is a model of neatness, typographically considered, and is a credit to the craft.

The Report of the Albany convention in pamphlet form is now completed, and has been sent to all the Annual, Life and Honorary members and ex-Presidents of the North American Bee-Keepers' Association—to the Agricultural Colleges and Experimental Stations of America, and all others entitled thereto. It will be mailed to any one desiring it, for 25 cents ; 6 copies for one dollar. It contains half-tone pictures of the present and retiring officers, printed on enameled paper, words and music of a Bee-Keeper's Song, etc. We think that all will be highly pleased with it.

Leave nothing to what is called "luck," and you will generally be what is called "lucky," said a wise man. This is as true in bee-keeping as in all departments of life. Use every precaution ; do everything well, and let people know where you are and what you are doing, and success is almost certain. These are *essentials* in bringing "luck." To neglect them is to be unlucky !

Honey Tanks should not be made of galvanized iron. Concerning this matter, Mr. S. Corneil, of Lindsay, Ont., writes as folllows:

> The editor of the AMERICAN BEE JOURNAL is quite correct when he says on page 85, "Tin is wholly unfit for such a purpose" (honey tank). But he is clearly mistaken when he adds: "Galvanized is quite a different thing." Cheshire writes as follows, page 479, Vol. II, "Bees and Bee-Keeping:" "Extractors, and all vessels used to hold syrup or honey, should under no circumstances be made of galvanized (zinc coated) iron, as the zinc and iron form a galvanic couple, favoring an attack by the acid of the honey." Commenting on a case in which bees were poisoned by honey and syrup which had been stored in galvanized iron tank, he says: "Galvanized iron is utterly ruinous to the flavor of honey, even if the existence be only of short continuance. If it be prolonged the honey is dangerous." In a subsequent article he says: "While the coating is perfect the vessel is to all intents a zinc one, but, as soon as an abrasion or wear exposes some of the iron, a galvanic couple is established"......"But the important point lies here. The presence of the iron increases the disposition on the part of the zinc to oxidize, and so galvanized iron is worse in its effects and exciting fluids (among which honey, syrup, and salt solution may be classed) than zinc alone."
>
> In a foot-note to the above statement, the editor of the *British Bee Journal*, Mr. Cowan says: "We are able to confirm Mr. Cheshire's statements as to the poisonous properties of galvanized iron and zinc......We have pointed out in the "Bee-Keepers' Guide Book" that neither galvanized iron nor zinc should be used......Our experience quite bears out Mr. Cheshire's statement, that when galvanized iron vessels begin to wear, they are worse than zinc, and it is astonishing how soon they do begin to show signs of wear. See *British Bee Journal*, pages 532 and 575, 1886.

The position taken by Mr. Corneil is quite correct, and he has our thanks for thus calling attention to it. As we had often seen it stated, that on the Pacific Coast where they had to extract the honey before it was ripe, they used galvanized iron pipes for evaporators, we so replied to the question without further thought or research. Such an evaporator was described and illustrated on page 360 of the BEE JOURNAL for 1879. In all probability California apiarists now use some other material, having found that to be unsuitable. If not, the sooner they do so the better.

Mr. D. A. Jones stated at the Ontario convention that his entire publishing business, including the *Canadian Bee Journal* had passed into the hands of a new company, and the new publishers say that they intend to improve it in many ways. This change was not unexpected, since the recent heavy losses sustained by friend Jones. We sympathize with him. It will be remembered that Mr. Jones spent a small fortune in Asia, looking for new races of bees. He was also the first life-member of the North American Bee-Keepers' Association—and the only one in Canada.

The Ohio Convention occurs next week, and friend Muth writes us as follows concerning transportation:

> FRIEND NEWMAN:—Kindly admonish our friends in the next issue of the AMERICAN BEE JOURNAL, when buying their tickets to Cincinnati, to ask the agent for a certificate for the bee-keepers' convention. These certificates signed by Secretary Morris at the convention, will insure their return trip for one-third fare. It required quite an amount of correspondence to surmount the red tape of some of these railroad men, to come to the agreement. I am sorry that we could not come to an agreement any sooner than last night, and I am sure that we are under no obligation for this favor to the Central Traffic Association of Chicago.
>
> CHAS. F. MUTH.
>
> Cincinnati, O., Jan. 29, 1892.

A. N. Draper advocates a 2-cent bounty on honey, but will it ever be obtained? The sugar producers have lots of influence "near the throne" and that is why they got a bounty.

Canada withdraws from the North American Bee-Keepers' Association. Secretary Couse has sent us the following, which was adopted by the Ontario Association as the report of the Committee on Affiliation:

To the President and Members of the Ontario Bee-Keepers' Association:

Your committee to whom was referred the relation of Canadian bee-keepers to the North American Bee-Keepers' Association beg leave to report:

That the North American Bee-Keepers' Association (as its name implies) was originally founded on an international basis, the United States and Canada being parties to and partners in the organization. For upward of twenty years, and until a very recent period, this international character has been maintained, notwithstanding the manifestation of a disposition on the part of some United States bee-keepers to regard and speak of it as a national institution. This feeling took definite and formal shape at the annual meeting held at Keokuk, Iowa, last year, when a proposal to incorporate the Association under the State laws of Illinois was made and agreed to.

The delegates from this Association, present at the meeting, met the proposal with earnest remonstrance, emphatic protest, and firm opposition; but in spite of their efforts a committee was appointed to incorporate the body, with headquarters at Chicago. One of your delegates was named as a member of that committee; but from what subsequently transpired he was led to believe that those with whom he was associated cared little for his opinion on the subject.

Moreover, we have reasons for believing that the official report of the Keokuk meeting, in the matter of the protests made by your representatives there, is largely characterized by a *suppressio veri;* that communications sent by them to two leading bee-papers in the United States, discussing the subject, were not published, and that the great mass of bee-keepers within the jurisdiction of the Association, were denied the information necessary to a full and proper consideration of the matter, and of the means of arriving at a discreet and just decision as to the effect of incorporation if carried out as proposed.

A few weeks ago it was announced in the AMERICAN BEE JOURNAL that incorporation had been effected. No particulars were then given. At the annual meeting held a month ago in Albany, N. Y., the report of the Incorporation Committee (which report had never been submitted to your representative on the committee, and who was present at the meeting) was presented and adopted. In brevity and *naivete* it is an official curiosity. No information is vouchsafed as to the terms and conditions of incorporation. The bald statement is, "The Association is incorporated under the State laws of Illinois;" that "the fees are paid, and the certificate in the hands of the Secretary." Not a word is said as to its probable effect in the other States of the Union, or here in Canada; but it embraces the important announcement that the incorporators are the "life-members *resident in the United States.*" The life-members resident in *Canada* are quietly ignored.

Before the final adoption of this report, one of your representatives at the Albany meeting asked whether "incorporation, as now effected, did not localize the jurisdiction of the Association, and make it an Illinois institution," and was answered that the Association was "now local, *but its influence would be national.*" When he put the question in another form, he was told, "It was necessary to incorporate under a State law, but the organization would be *national* in its character.

Your committee is not in a position to express an opinion on the future influence of the Association, or to closely scrutinize its character; nor is it within its province to inquire what particular relationship it bears to the bee-keepers of the United States resident *outside* the limits of Illinois; but it has come to the conclusion that Canada has no rights under the new state of things, and that it was not intended she should. This is amply clear from the fact that her life-members are not among the incorporators, and that the widest character and influence claimed for it, by its promoters are "national" and not international.

Your committee considers that the changed nature of the Association is not a mere innovation, but a complete revolution in the groundwork and nature of the insitution, as it was heretofore constituted. Before, it was broad and international; now it is local, with but a declared national influence, and your committee look upon this change of organization as a gross violation of an existing compact, deliberately carried into effect in the face of the vigorous protests of your representatives.

Your committee are unanimously of the opinion that the only course open to the bee-keepers of Canada, consistent with independence, self-respect, and national dignity, is to retire from a position which has become, through no fault of theirs, anomalous, if not humiliating, and therefore recommend that the Ontario Bee-Keepers' Association do not continue in affiliation with the so-called North American Bee-Keepers' Association.

Your committee has no hesitation in expressing the belief that the bee-keepers of Canada regret the circumstances that compel the severance of ties which have pleasantly existed for more than a score of years, and in their name tender to the great body of American bee-keepers, which it believes are not responsible, the assurance of our continued fraternal good will, our high consideration and cordial regards, and of our readiness at all times to co-operate with them in any enterprise calculated to further the interests of the industry in which we are alike engaged.

All of which is respectfully submitted.

R. McKnight,
Wm. F. Clarke,
S. Corneil,
Allen Pringle.

Mr. McKnight was a member of the Committee on Incorporation (see page 45 of the report of the Keokuk convention), and every member of that committee voted that the Incorporators should be selected from the Life-Members—each selecting the 5 he preferred. Mr. McKnight voted for 4 out of the 5 who signed the petition for incorporation. He then remarked that he supposed, as it was voted at Keokuk that the society should be incorporated in Illinois, that Mr. D. A. Jones (the only Canadian Life-Member) would not be eligible. The "form" to be signed by the Incorporators read: "We, the undersigned, citizens of the United States," etc. Therefore, no one, not a citizen of the United States, could be included—much as we would like to have had friend Jones in that capacity.

It is surprising that now, *one* of the committee of the Ontario society should join in the foregoing report, which says that the rest of the committee "cared little for his opinion"—when in fact his vote prevailed, and his opinion about the only Life-Member in Canada was indorsed and acted upon!

It is well-known that it was our intention to be present at Albany until shortly before the time for the convention to be held. Then, while much indisposed, we remembered that we were chairman to two committees, and must report. We wrote such and sent them, not knowing whether any of the other members would be present or not. Now, in the above report, we are blamed for not submitting our report to the rest of the committees; as our statement was simply a record of what had been done, such was quite unnecessary.

Then, again, complaint is made that "not a word is said as to the probable effect" of incorporation—but what had the committee to do with that matter? The Association settled by vote what was to be done, and appointed a committee to do it—"not to ask the reason why," or to moralize on its effect. Such was not the business of the committee.

The Ontario committee have simply taken a narrow-minded view of affairs, and evidently were more intent upon finding fault, than of fostering harmony. If they desire a distinct organization, it is their privilege to have it—and that, too, without quarreling with those who would like to continue to work in harmony with them, and to co-operate in every laudable undertaking.

If they feel that they cannot continue affiliation without sacrificing "independence, self-respect and National dignity"—they should not be asked to remain!

In the last issue of *Gleanings*, friend E. R. Root gives complete answers to many other points in the following language, which we heartily endorse:

> The above came to hand from the Secretary, and his language is couched in such a form that one *might* get the impression that in the sending of it he was doing a disagreeable duty, and simply acting under instructions.
>
> We were greatly surprised and pained upon reading it—surprised, because we are certain that none of the members who were instrumental in having the

North American Bee-Keepers' Association incorporated had the *least thought* that that action would cause the Canadian brethren to withdraw. We were pained, too, because of some statements in the report that are calculated to carry the impression that we desire to put out from the North American Bee-Keepers' Association the Canadians, and break down their "National dignity," etc. Nothing could be further from the real truth.

We have since received a private letter from one of the members of the committee to the effect that the grievance was not against the bee-keepers of the United States as a body, but against a *few* of the leaders, and mentioned Thomas G. Newman, Dr. A. B. Mason, Dr. C. C. Miller, and the two Roots. We know that every one of the gentlemen named will be as much surprised as ourselves; but they will doubtless speak for themselves.

We greatly regret that the two members who were present at Keokuk should still misunderstand (we cannot believe intentionally) the *purpose* of incorporation.

Although it has been explained heretofore, it seems they have entirely overlooked the fact that organizations in the United States that are national or international in their character and influence, are, or should be, incorporated under the laws of some *one* particular State; and, as was also ably explained by Capt. J. E. Hetherington, at the Albany convention, incorporation *does not* make the Association local, but a legal body politic, amenable to the laws, with special functions, rights, duties, and liabilities; capable of suing and of being sued—in short, transacting business.

It is quite probable that the members of the O. B. K. A. as a *body*, not being familiar with the laws of the United States, were not in position to appreciate what incorporation on this side of the line means. We could not incorporate under both the national governments, nor under the laws of the United States, but under the laws of some one State. But, we repeat again, the North American is not less international now than before. Let us give one illustration of what the society now under incorporation is capable of doing:

As a body it can sue any packing-houses in any State, where the laws are strict enough, that may be engaged in the adulteration of honey. It is in better position, also, to protest against injurious legislation from national or State governments, because it is an incorporated body.

Nine-tenths of the bee-keepers of the North American are residents of the United States; and Chicago, the place of incorporation, is the most central of any point of those bee-keepers. The great *mass* of them in the United States are in the North. This our subscription-books show very decidedly. Nothing was more natural than that the State of Illinois should have been selected, and it seems to us, to speak plainly and in all kindness, that nothing but a partisan spirit, or a silly quibble on technicalities on the part of the committee, could make objection to it.

We have no grievance against the *body* of the Canadians who voted for the adoption of the report, for they were acting in good faith. Some of our warmest and best friends we number among the Canadians.

The report goes on to say, "We have reasons for believing that the official report of the Keokuk meeting, in the matter of the protest made by your representatives there, is largely characterized by the a *suppressio veri*: that communications sent by them to two leading bee-papers....................were not published."

We have before us the report of the Keokuk convention, as written by the secretary, C. P. Dadant. The report had to be brief, necessarily, on almost every subject that wos discussed; and yet it seems, as we look it over, that the Canadian brethren were given a fair hearing. GLEANINGS was one of the leading bee publications designated, that is *said* to have suppressed one of the communications. The matter at that time was not available; and, moreover, we were sure the writer did not properly understand what incorporation meant on this side of the line, and we thought it useless to stir up discord or partisan feeling over misconception and misunderstanding. We were not aware, until we read the report as above, that the life-members in the United States only were the incorporators. We are very sure that the Canadian life-members were left out for no other reason than that the laws of incorporation require that the incorporators be residents of the United States. By the way, if we are correct, there is only one life-member in Canada, and twve in the United States. The Canadian member is D. A. Jones, and we are sure he would never quarrel with us on that point; and of the committee who make this as a big handle, not one is a life-member.

Reference has been made to the fact that the bee-keepers on this side have called the North American "national." As we really had no distinct national association, the nearest to it was the North American Bee-keepers' Association; and when "national" was used it was employed as a convenient term, without any thought of excluding Canada.

As an evidence of the fraternal feeling, we presume it will do no harm to let out the secret that there was a strong effort on foot at Albany to put S. Corneil, a Canadian, in as president of the N. A. B. K. A. for the ensuing year. A number of members, including President Elwood, approached the writer on the subject, asking whether he would vote for him and what he thought of our Canadian brother for the position. We not only indorsed the name, but said we would give our support to it, which we did. Those who were present at the Albany convention know well that Mr. Corneil would have been elected president if he had not absolutely refused to accept the honor. After this we were a little surprised that his name should appear among the members of the committee who drafted the report as above.

This ought to show, beyond a question of doubt, that the American bee-keepers, who are members of the North American, desired to recognize Canada, and desired, also, to continue their past pleasant relations, as we have done heretofore. Mark this: The very bee-keepers who voted to elect Mr. Corneil are the *same ones* who voted to adopt the article of incorporation.

Now brother bee-keepers across the line, does this not show that the idea of crowding Canadians outside of the Association was the furthest from our thoughts? and does it not prove that we on our part desired to continue our pleasant fraternal relations?

We have taken a good deal of space to reply to this; but the reason we have done so is because it is an international matter; and now that the O. B. K. A. has taken the action that it has, it is proper that, as one of the Roots, and a life-member of the N.A.B.K.A., that we were not intending to break down, not even thinking of breaking down, their "independence, self-respect, and national dignity." If the Canadians refuse to reconsider, of course that will leave our association distinctly national, for Canada has been the only nation, outside of the United States, which had a voice in the proceedings of the North American.

It seems by the above that we are the principal offender. This is a surprise to us, as it is no doubt to all the others named—for we have labored assiduously for harmony and cordiality. Have sacrificed our own feelings and interests to the gentlemen who signed the document. But when a quarrel is sought, some one must be blamed, and the five Americans are singled out. We are in excellent company, and shall have to bear the blame, even though we have no idea of why we should be censured.

We opposed the incorporation of the society in Illinois, because we feared that the two Canadians present at the Keokuk meeting would say that we were personally interested in its location. The members of that committee will bear witness that upon every vote we were recorded in favor of Indianapolis, Ind., because the Association was born in that city. We subsequently stated this fact in open convention at Keokuk, and it was then well understood that we were in favor of any place which should be selected by the Association. There were only two votes against the incorporation in Illinois, and these were from the two Canadian delegates.

The report of the Canadian Committee also attacked the report of Secretary Dadant, and he writes us the following private letter in self-defense:

DEAR MR. NEWMAN:—On page 783 of the *Canadian Bee Journal* I am accused of *suppressio veri*. I have sent a protest to that paper, and wish to notify you, as the article also seems to hit you, and I wish you to know just where I stand. Every one who knows me, knows that I tried to report all the facts, and I assert that it is ungentlemanly to accuse me at this date, when I have not been given notice either of errors or omissions by any one. I hold that the most elementary rules of politeness would require that I be given a chance to correct either errors or omissions, by personal request, before such a charge be made officially. C. P. DADANT.

Some of that Canadian quartette have no confidence in one another, but, likely, the one who *wrote* the Report, through base intrigue induced them to sign it.

A Reverie—In Memoriam.

CHARLES ELMER UPTON.

The fading dreams of by-gone years
  Come thronging 'round to-night,
The floating mists of unshed tears
  Keep gath'ring as I write.

The fleeting joys of life's glad May,
  The home upon the hill,
The happy scenes of each last day,
  Seem ling'ring near me still.

Those golden hours for aye are fled
  Adown time's dark'ning way;
My youth lies mold'ring with the dead;
  The Past is old and gray.

Placerville, Calif.

Queries and Replies.

Covering for Hives when Moving Bees.

Query 804.—Expecting to move 100 colonies of bees in the Spring, and wire covering being expensive for so many hives, what material can I use in cloth which the bees will not cut through?—Ontario.

Common domestic, provided it is not left on the hive very long.—J. M. Hambaugh.

Stick to the wire-cloth. You only need enough to cover the entrance.—C. C. Miller.

I would move them early, and then there will be no need of wire gauze, except at the opening; especially if a cool time is chosen.—A. J. Cook.

We know of nothing as safe and as cheap as wire-cloth; ¼ of a square foot of it will usually insure a colony against loss by want of air.—Dadant & Son.

Wire-cloth is enough better to pay the difference in the expense, and I doubt if any other cloth could be safely used as a substitute.—G. M. Doolittle.

I know of no cloth that I should dare to use instead of wire-cloth. I should try to move them so early that the board cover would do.—R. L. Taylor.

I should prefer the wire covering to anything I now know of. The annoyance of loose bees would much overbalance the expense of the wire-cloth.—Mrs. J. N. Heater.

Any cheap cloth will do for short distances. But I think you will find wire-cloth the cheapest in the end, if you move any distance.—H. D. Cutting.

You do not say how far you are going to move them, nor at what time in the Spring you expect to do it. If the weather be cool, distance not great, and time of confinement not long, I doubt if you need either wire or cloth.—Eugene Secor.

Almost anything that is pretty open, like cheese-cloth or mosquito netting, in two thicknesses, ¼ of an inch apart. A little more labor and a few more cleats between the cloth will take place of the more expensive wire. It is supposed you are going with the bees; if you are trusting them with railroad men, use wire.—James Heddon.

Nothing which they will not cut through in time. Burlap is as good as anything you can get in the way of cloth. But if you use the cheapest grade of wire-cloth, which is just as good as any, there will be but a trifling difference in cost. For me, wire-cloth would be decidedly the more economical.—J. A. Green.

You do not say how far you are to move your bees, and I do not know as it makes any difference. If you move them while the weather is cool, the only ventilation they need will be an ordinary-sized entrance; but if they are to be moved by a few miles, and it can be done in the night, the entrance need not be guarded.—A. B. Mason.

I think that I would use the wire-cloth covering. I have moved bees short distances with cheese-cloth covering, but it is risky. It would be a bad job to have the bees get out while on the road, and get after the horses and driver, causing them to run away, and smash up things.—E. France.

If the time of confinement will be less than 24 hours, use burlap. Remove the covers of hives, and after placing Hill's device or a block across the frames, cover all over with the burlap. There should be a roomy space *above* the frames. Use *wire-cloth* over the entrances. If you can, give side and bottom ventilation with wire-cloth.—J. P. H. Brown.

I have moved my apiary by railroad three times, and my method was to cover the entrances of the hives with wire-cloth, and put on the supers with several holes not less than an inch in diameter in them, covered with wire-cloth, giving the bees opportunity to cluster above the brood-frames. After a journey of from 50 to 100 miles, they were in good condition. This plan does not require much wire-cloth.—M. Mahin.

Burlap will do very well if you have a large space to cover. It costs about 10 cents per yard.—P. H. Elwood.

Better use the wire-cloth, and be sure to put it on the *bottom* of the hive if you want your bees to ship safely. Give only a little ventilation at the top. Bees can be shipped hundreds of miles in good condition with free bottom ventilation, when a part or all would die without it. —G. L. Tinker.

Any kind of suitable cloth would also be expensive, and I do not think that either wire-cloth or common cloth necessary, if the bees are moved before warm weather comes. Bee-escape boards would be just the thing, nailed to the hives with small wire nails, and the holes for escapes covered with wire-cloth.—C. H. Dibbern.

Taking it yard by yard, wire-cloth can be so used as to be actually cheaper than any cloth covering that will answer the purpose at all. Any textile fabric you can obtain, that will confine the bees safely, will not allow sufficient ventilation to carry the bees safely through the journey. I assume they are to be carried quite a long distance.—J. E. Pond.

You do not say how far you expect to move. For long distances wire-cloth will be safest, as they might (if confined long) eat through thin cloth and cause trouble for a short distance. Cheese-cloth or musquito-netting will do. I have safely moved hundreds of colonies during cool weather in Fall and Spring, by simply screening the entrance, when the distance was not more than five or ten miles.—S. I. Freeborn.

It will depend upon how long your bees are likely to be confined under the cloth; when deciding the question you should take this into consideration. My bees will cut through any kind of cloth in process of time (wire is not cloth.) Thin brown cotton-cloth is not likely to be cut through in the Winter or Spring, in a week or ten days. Last Spring I prepared 2 colonies for shipment, tacking thin cotton over the frames. There was a delay of about ten days, and one of the colonies cut a hole in the cloth, which had to be patched. I would risk thin brown cotton-cloth, if the shipping could be done in a week.—G. W. Demaree.

I know of no cloth that would give good ventilation that bees would not cut through, if confined long enough. But for short distances any kind of cheap open cloth will do. I have had considerable experience in moving bees, for the last 20 years, and unless the weather is warm, I do not use anything for covering except the quilts and arched covers that belong to each hive. I simply make my wagons bee-tight, load-up, and pull out.—Mrs. Jennie Atchley.

You do not state whether you mean over the frames or over the front of the portico. If over the tops of the frames, "Indian head" muslin will serve a good purpose, or a thin board, to cover the top of lower hive, with a few holes made in it with a brad-awl. If over the entrance to the portico in front, is meant, you can close the entrance to the hive with a strip of wood with a few notches cut in for ventilation, and it will answer every purpose, unless the weather is quite warm, and the bees are to be confined for several days.—Mrs. L. Harrison.

A board at each end and less wire-cloth will do; but there is nothing as good as wire-cloth for keeping the bees confined. "Excellence is cheapness."—The Editor.

Water for Bees.

1. It is frosty in the morning, and cool in the afternoon, and many of my bees go out for water, and are unable to get back to their hives. Do they need water at this time of the year? 2. The water in the only well that they go to is slightly alkaline, or salt, or both; do they like such water better than the other kinds? Wm. F. Gassman.

Woodland, Calif., Jan. 12, 1892.

[1. Oh, yes; the bees need water in your locality now, for they are rearing brood.

2. They like salt water; in fact, salt is often added to fresh water for their use.—Ed.]

Don't talk of by-and-by doing something which is needed now. Now is the time, and it will not pay to put it off.

Topics of Interest.

Winter Protection for Bees.

CHAS. F. MUTH.

This much-discussed subject will remain before the bee-keeping fraternity as long as there are bee-keepers, and new recruits are enlisted. The matter is simple, but many erroneous theories persistently kept up by some zealous brethren, confound the ideas of many, and consequently Winter losses still remain a serious drawback to bee-culture.

The only requisites to the safe wintering of bees, in our latitude, are: An abundant supply of food within easy reach of the cluster, a dry habitation, and, at least, a good medium colony of bees. We need no cellars, nor double-walled nor chaff hives. Single-walled hives of 1 inch or ⅞ boards, are all that is necessary.

It is immaterial whether their Winter stores are clover, basswood, or Fall honey, or even honey-dew, or whether the bees have had access to cider mills or not. It makes no difference even if most of their combs are capped or not.

Each comb may have its share of pollen. Pollen has injured a colony of bees in Winter no more than "Pillsbury's best" has injured the human family. However, if we permit the best wheat flour to get moldy or sour before it is baked into bread, or afterwards, it will be poison to us. Why should bees not get diarrhea if we permit their honey or pollen to get sour in their combs? Who ever saw diarrhea without moldy combs? Keep their food in a healthy condition, then no diarrhea need be feared.

We have all read and heard long arguments on the subject of wintering. I will, therefore, not tire you with scientific speculations, but I will tell you my manner of wintering, and if I can prove to you that I have had no bees Winter-killed by any diseases for many years, it should be satisfactory evidence in favor of my argument.

I am aware of the fact that hives about 10 or 12 inches square, with frames 12, 14 or 16 inches deep, without a bottom, are best for wintering. The deeper the hives the better, because by the time Winter approaches, about two-thirds of the upper parts of their combs are filled with honey. The bees cluster below, and more gradually upward as the honey around their cluster is consumed. They can still keep moving upward, even if the Winter should last a month longer than usual. The lower parts of their combs being exposed to the air, keep dry, the food healthy, and the cluster is snugly hid among the combs. They will not suffer by the cold, even if the thermometer keeps at 20° below zero for two weeks in succession. Deep hives approach the log-gum, and answer the purpose better for rearing bees than honey.

But as the profit of the apiary is the end we are after, we use shallow hives, with a large surface, for the honey chamber. We know that we can winter bees in the Langstroth hives as successfully as in any other hives, and their preparations for Winter give us no more trouble than others.

About October or November the inside upper story (the honey chamber) is taken off, and two combs one-thirds or one-half filled with honey, are placed in the middle of the brood-chamber; next to these are placed the heaviest combs; and lighter ones towards the sides of the hives. The end ones may be empty. I use 10-frame hives only, and need no division-boards during Winter. Every comb has a Winter passage through the middle. The bees may fill 3, 4, 5 or 6 spaces, between combs, on a cold day. The brood-chamber is covered up with three third-covers, or, with one board, if you please. Now, the outside upper story is put on, and into it, on top of the three third-covers, a straw mat is placed. The roof of the hive turns the rain. I consider no hive complete unless its honey-chamber is an independent arrangement.

At any time, during a cold day, I can raise the straw mat, and letting my hand glide over the wooden cover, I can feel the spot below where the cluster rests comfortably.

The hives stand at a slant of about two inches from rear to front, and the entrance is left open its full width. The bottom-boards remain dry, and what few old bees fall down, have disappeared by the time that Spring approaches. The cleaning out of my hives in Spring, is the exception with me, and not the rule.

When the cold weather is over, about March, and it is time for the bees to breed up, the entrances of their hives are contracted to about an inch. Spring is the time to look over their stores, and to supply those that may need it. I have discarded, as of no value, all stimulative feeding. A comb of honey, or several combs partly filled, answers the purpose best.

If your hives stand level during Winter, you will be surprised at the amount of water running out, when your raise the back ends on a warm day following a cold spell. If this water remains in the hives, it is absorbed by the honey and pollen. The air being warm about the cluster, the combs become moldy, and the honey and pollen sour in the immediate neighborhood of the bees. I have seen such pollen in a state of fermentation that had made it raise over the rims of the cells, and the smell of the sour honey was unmistakable. If, under such circumstances bees die of diarrhea, we should not accuse the quality of the honey, nor the pollen, but the beekeeper. Let us, therefore, be as particular in preventing moldy walls in our bee-hives, as we are in preventing the same in our own dwellings; then the wintering problem will trouble us no more.—*Read at the Indiana State Convention.*

Cincinnati, O.

Qualities of Black Bees Defended.

A. D. ELLINGWOOD.

I believe I was the first person to take up the cudgel in defense of the German black bee, and I feel gratified to see others coming out courageously and taking their stand along with me. I am thoroughly convinced that the black race of bees is a very valuable one, and that with the same care and attention that is given the Italians, they will give just as good results.

I have been making a careful canvass of the Eastern States and I find that the black bees are decidedly popular. I have received a great many letters complimenting me on my courage in defending them, and many of the writers say that they by all means prefer them to the Italians.

In my own yard the blacks have excelled the Italians every time. One year I took 500 pounds of honey from 6 black colonies and from 30 colonies of Italians in the same yard I took only about 100 pounds. They did scarcely anything but swarm.

I do not say that the Italians are an inferior race, but I do claim that the blacks are just as good, and I prefer them to all others. I have had six years' experience with bees, and have usually had from 75 to 100 colonies, so I am fully prepared to substaniate any claim I make regarding my favorite bee.

To prove to any of the intelligent bee-keepers that the black bees are a very fine race of bees, I should like to have them experiment with a nice, large colony and give them a fair trial, getting them from any reliable man in Maine, New Hampshire or Vermont. Let the bee-men who have the German or black bees, and know and appreciate their worth, come forward and defend them. They are valuable bees. Let us prove it.

Good Yields Per Acre, Etc.

J. E. PRICHARD.

I often see wonderful results from experiments chronicled in the BEE JOURNAL by our "Western cousins," the last but not least being about fruit producing $2,000 per acre, which some may be disposed to discredit, but I think it a small return for prairie soil.

In the Spring of 1877 I set out late when in bloom 95 Sharpless strawberry plants, and the next Spring they covered a space of nearly 12x17 feet, from which I picked 160 quarts of berries, which would be 34,160 quarts per acre, which, at 10 cents per quart, would be $3,416, and that here in poor New Jersey, and by a beginner. The Fall previous I raised, on the same ground, celery that blanched stems 22 and 24 inches long, and as solid as a radish. But now I am an apiarist.

I went to my pet colony yesterday, to give them a comb of honey that I took from them in the Fall, and they stung me so badly that the blood ran out on the removal of the sting, but it only hurt for a few minutes, and I rather enjoy the fun. I was much pleased to read in the BEE JOURNAL the efforts of a brother Jerseyman in Trenton. I did not suspect that there was one so near me, to whom I could look for counsel or sympathy in time of need. I hope I may hear from more of them.

My bees are in a shed 5x16 feet, facing south, and on these warm days the bees are out in great numbers, as the sun shines full on the front and top of the hive. I think they have stores enough for Winter, and plenty of bees.

INSTINCT VS. REASON IN ANIMALS.

Anent the topic of instinct or reason in animals, I have conclusive evidence that they reason. When a boy, I had two dogs, and when they would take the trail of a coon, they would run it to the tree, when one would stop and bark, and the other would take a circle around a little further than the coon could jump from the tree, and if he had jumped off the tree, the dog would take the scent, and away they would go. This was invariably the rule. The last one I caught with them jumped five times, but he could not escape their vigilance. Now, was it not reason that taught them how far to go to make sure of their game? If the coon did not jump, or if the dog failed to take the trail in his circle, he would join the other dog at the tree, and they would make the woods ring with their music. This, to my mind, is more reason than some men evince.

Port Norris, N. J., Dec. 11, 1891.

Trapping Skunks in the Apiary.

JOHN BERKEY.

I notice by the item written by Mr. J. H. Andre, on page 24, that he has had the same experience with skunks as I had in my apiary. I think that I was the first one to make inquiry about this pest in the bee-yard. My bees were being molested as indicated by the general appearance of things around the hives in the morning; the entrance blocks were out of place, some lying on the grass along the side of the hives, and others a few feet away from the hives. By the variety of answers received through the BEE JOURNAL, I soon found out what the robber was—that it was the skunk.

My apiary is ten miles from here, consequently after the swarming season is over I do not get to see my bees oftener than once a week, and sometimes during the Winter but once a month after they are prepared for the Winter, filled in with dry leaves and mice guards at the entrances.

To trap these robbers, there is no need of any bait on the trap. One can see by the outward appearance of the hive where they work the most, and to those hives they will come regularly every night as long as there are any bees there.

Now drive a stake in the ground a few feet away from the entrance of the hive, according to the room that there is from the hive; set 4 or 5 ordinary steel traps immediately in front of this hive, and fasten them to the stake driven in the ground. Give just length enough to the chains of the traps so that when the skunk is in the trap it can reach no hive. The skunk is sure to get into one of these traps with one or both hind legs, and in the effort to get away it will be likely to get into another trap. I caught one last October, one trap having the skunk by the hind leg, and the other trap by the front leg. The object of more than one trap is that when the skunk works on the bees it stands on its hind legs, with its front feet and mouth at the entrance of the hive. In this way it is as certain to get into the trap as there are bees in the hive.

When the skunk is caught it is not likely to make itself known by the perfume which it possesses, as long as it is not disturbed. In the morning do not let the skunk see you, but have a loaded shot-gun ready; crawl behind the bee-hives unobserved by the bee eater, get within 15 or 20 feet of the skunk, send the whole load of shot through its head, and let it lie until dead before you touch it, when you will hardly know that there was a skunk about the apiary. The one I caught in the month of October left no smell at all. There was one caught the same night, about half a mile further down the creek, in a chicken coop. Its perfumes reached almost to Easton. How they managed that one, I was unable to learn, but I suppose a dog attacked the skunk while it was in the trap.

Easton, Pa., Jan. 13, 1892.

Foundation vs. Empty Comb for Sections.

F. H. CYRENIUS.

The above comparative value was one of the questions discussed at the late Albany convention, and the answer given was that foundation was preferable except for a bait.

Now I feel like protesting somewhat. If empty comb is superior for a "bait," why is it not superior to use in a larger quantity? Why are not a few full boxes, or a whole super, preferable to foundation, if it is preferable for bait? My experience is, that empty comb which is clean and white is far superior to foundation.

If you wish to test the merits of comb and foundation, place on a hive a case of sections with foundation, and above this a case of sections containing comb; now arrange on another hive a case of sections with comb, and above this a case of sections with foundation, and the bees will show their preference.

During the past season I arranged a number of hives with a case of sections filled with foundation, and above this a story of empty comb with some brood as a "bait," thinking that the bees would quickly fill the sections between the brood above and below, only allowing one ½-inch opening between the sections and the chamber above. To my surprise, they filled the upper chamber full of honey through the ½-inch opening before drawing one cell of foundation in the sections, with all openings possible between the lower hive and the sections.

I know many of our best bee-keepers claim that where comb and foundation are used in the same super, the foundation will be filled as quickly as comb. This is true, for the bees like to complete their combs in a uniform manner, and whether full or part full of comb or foundation, they like to *finish* all about alike.

Again, place a section filled with foundation between two sections of comb without a separator between them, and they will draw the combs almost to the foundation before drawing the latter in the least.

I have known the bees to draw the comb in the brood-chamber to the very base of a frame of foundation, scarcely drawing a cell of foundation when placed between combs not containing brood.

Do not think that I wish to condemn foundation, for I fill all sections and brood-frames with foundation that do not contain empty combs.

Oswego, N. Y.

Plentiful Season Expected.

C. H. DIBBERN.

The new year opens auspiciously for the bee-keeper, as well as for the farmer, the manufacturer and the laboring classes. Never in our recollections have the possibilities of the future been brighter than at the present time. While other parts of the world people are starving for the bare necessaries of life, our own country has been blessed with abundant harvest.

Although bee-keepers have not been generally equally favored with very large crops of honey, they will share to some extent at least, in the general prosperity. But what is now of the greatest encouragement to the bee-keeper, is the almost certainty of abundant harvest of the golden sweets during the coming season. Over a very wide area the plants, especially white clover, are now in very fine condition, and if we only succeed in bringing our bees through the winter, in equally good condition, we will be "in clover" next June, sure enough. The fine weather in December has been a great help in the wintering problem, and so far all is well.—*Western Plowman.*

Who Should Keep Bees ?

MRS. JENNIE ATCHLEY.

The question is often asked, "Will it pay me to keep bees ? I answer yes, and I will tell why. I have argued against farmers, as a class, fussing to produce honey, when they can buy nice honey so cheaply. The idea was, that they could raise $20 worth extra of corn, oats or cotton, at a profit, and with that money buy the honey from a neighbor who made bee-keeping a business, while, if they had raised the $20 worth of honey, it might have been at a loss. I have always argued that this was sound business policy ; and, for that matter, I still think so, but I am satisfied that it will not work.

Many farmers seem to have the feeling that they must not pay out money for anything they can possibly get along without. The writer was born on a farm, and it is easy to see where the trouble lies—I tell you it makes all the difference in the world, what one's bringing up has been. It makes no difference how much nice honey is in the market, there is a use for every dollar besides being spent for honey.

I will quote something from Mr, Terry's "Strawberry Book," to which I am indebted for the spirit of this article:

"I remember once going home with a well-to-do farmer who had many acres of land to manage, and considerable money invested in outside business. He showed me among other things, a large bed of strawberries. Now I knew that this friend was close to a market where he could buy fine home-grown berries at fair prices, and I was rather surprised that a man with so much business on his hands should be bothering to grow his own strawberries. So I said to him, you grow these, of course, for the pleasure of it, and not because it pays you to fuss with such little matters, when you have so large a farm and so much other business to attend to? No: I raise them, he replied, because I should not have them if I did not. I tried your plan, (of raising something else to buy berries with) and we did not have, I presume, more than a peck of berries during the season, although they were plentiful in the market. I could not buy more than a quart or two at a time, and that went against the grain, my bringing up on the farm had been another kind. I could not buy them freely. It was raise them or go without.

"Again, a well known agriculturist sat with me at a hotel table. He had been a farmer all his life, and is well off. For a wonder, there was some real good cheese on the table. Our friend helped himself several times. He seemed to like it very much. I said, "You do not get good cheese down your way, I guess, judging from the way you take hold of that." His reply was: "They have it at the groceries, but, to tell the truth, as we do not make cheese we do not have it on our table one week out of the fifty-two." Now this farmer lives in a house that cost at least $5000.00, and has no lack of funds; but although evidently fond of cheese, he goes without it because they do not produce it. His bringing-up clings to him, and he cannot use freely what must be bought for money—don't you see?

If this is the case among well-to-do farmers, who could draw their checks for thousands of dollars at any time, and have them honored—how would it be likely to be where there are two or three ways for every dollar to go?

I visited such a farmer, last winter. He is not really poor, but is not yet out of debt, and said he had hard work to pay the interest and make both ends meet.

His wife told me that she had tried every Spring to get her husband to set out strawberry plants. He said; "Oh! we can buy strawberries cheaper than we can raise them;" "And now," she says, "how many do you think he bought last year? not one single quart!" Now this looks a little against that friend, but I know how it was. He thought in the Spring it was cheaper to buy than to try to grow them, but when it came time to buy, he hadn't the money to spare. He felt as though he must pay his debts instead of buying luxuries, and that was honest and square.

Just for this reason, thousands of children and families will go without honey and strawberries, unless they produce them. Even if they are not in debt, they may be short of money, and berry time will slip by and they will not have any.

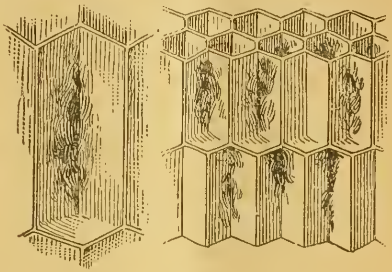
Now, let us take human nature as we find it, and urge every farmer to produce his own honey.

Floyd, Texas.

Foul-Brood Combs.

R. L. TAYLOR.

"I send you a rough pencil sketch, giving something of my ideas of how it should appear. I also send you a piece of comb containing the diseased and dried up larvæ. To see the dead larvæ to the best advantage stand with your face toward the point of the compass where the sun is and hold the comb down in front of you, with what was the lower edge away from you, so that the sun lights up the upper side, and so that your sight strikes across it at an angle of 30 or 40 degs. This will make the presence of the disease very evident."



ENLARGED CELL—CELLS NATURAL SIZE.

Following are comments made editorially on the foregoing letter by Mr. Root:

In a former article Mr. Taylor said: "The dead brood is entirely dried up—mere scales, almost the color of the comb itself, lying fast to the lower sides of the cell and drawn back more or less from the opening." In the sample of comb sent there seemed to be a sort of residue a little darker in color than the comb itself, lying fast to the lower sides, as explained. It is, perhaps, exaggerated a little bit in the engraving, but the purpose is to show about how it lies on the bottom sides of the cells, or what are the bottom sides when in the hive. It seems these scales are nothing but maturated masses of foul brood dried up, and which the bees are loath to clean up.—*Gleanings.*

CONVENTION DIRECTORY.

Time and place of meeting.

1892.
Feb. 4, 5.—Wisconsin State, at Madison, Wis.
Dr. J. W. Vance, Sec., Madison, Wis.

Feb. 10, 11, 12 —Ohio State, at Cincinnati.
S. R. Morris, Sec., Bloomingburg, O.

Mar. 1.—Wabash Valley, at Vincennes, Ind.
Frank Vawter, Sec., Vincennes, Ind.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—The Editor.

North American Bee-Keepers' Association

President—Eugene Secor..Forest City, Iowa.
Secretary—W. Z. Hutchinson....Flint, Mich.

◆

National Bee-Keepers' Union.

President—James Heddon ..Dowagiac, Mich.
Sec'y and Manager—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Bees Stolen By Sneak-Thieves.

During the sessions of the late Colorado Bee-Keepers' Convention, some sneak-thief stole 2 colonies of my bees. I reported it to our City Marshal. I would advise bee-keepers to watch their apiaries, lest they, too, be visited by such thieves, and lose valuable colonies of bees. S. M. Carlzen.

Montclair, Colo., Jan. 24, 1892.

◆

When to Put Supers on the Hives.

My experience in comb-honey production, is that many do not put on the supers early enough. Most of the doctors want it done when we can see small bits of new comb built in the hive, but I am sure that a week earlier would be better. Last year I put on half my supers on May 20, and had 40 pounds of honey from these, and sold one swarm, while on the other half, put on June 10, nearly all gave swarms. The reason, it seemed, was that these last colonies, not having room to go to work in the surplus part, commenced to rear a queen and made every preparation for swarming, and all the bait-sections and room I could give them in the super would not prevent them from swarming; and with the swarms went my surplus comb-honey. J. I. Brought.

Strode's Mills, Pa.

◆

Bees in an Attic.

I wish to put 4 or 5 colonies of bees in our attic in the coming season; one to face the east, one to the west, and the rest to face the south. One I wish to run for comb-honey; the rest for extracted. Will some of the readers of the American Bee Journal, who have had experience, please give me (through the Bee Journal) a plan of such a hive, and how they are handled to obtain the best results. E. S. Andrus.

Torrington, Conn.

◆

Wintering on the Summer Stands.

As long as I keep bees I expect to take the American Bee Journal. I have 10 colonies of bees, and they have been flying for four days. I am wintering them on the summer stands with protection on the north side. I started with 5 colonies last Spring, and increased them to 12, but killed 2 in the Fall that had but little honey. I obtained 120 pounds of comb-honey, part of it being dark. I hope it will be a better year for bees this year, than 1891. H. T. Lathrop.

Willard, Iowa, Jan. 16, 1892.

◆

How I Began Bee-Keeping.

On July 13, 1889, an after-swarm settled in one of my apple trees, and having no former experience in bee-keeping, I started in a rather queer way to hive them. I wrapped a sheet around my head, climbed into the tree and began hiving them in a cracker-box; in the course of an hour I succeeded in getting all the bees into it. I went that evening to a neighbor who kept bees, and purchased a hive with drawn combs. The next morning he came and put them into the hive for me. They succeeded in getting enough stores for the Winter. The next season being a poor one for honey in this locality, I increased my colony to three, one being a prime swarm, and the other a nucleus. They gathered only honey enough for winter stores. Last Spring I started with 3 colonies, and increased them to 10, 3 being prime swarms, and 4 nuclei, I also got 20 gallons of fine white honey, the most of which was basswood. I also caught a runaway swarm in the meadow. I started mowing in the morning, but before I got around the lot, I mowed through a swarm of bees. I went home immediately, got a hive and drawn combs, and set it, without a bottom, over the swarm, which had again settled in the grass. In the course of 15 minutes they were all in the hive. I then took them home, and they did well. Thus I have 11 colonies in the cellar in good condition. On Aug. 21, 1891, I secured a pure Italian queen, and she has reared about five frames of brood, with which I am well satisfied. I also received another Italian queen about Oct. 10, but as it was so late she reared no brood. By next Fall I intend to have all Italian bees, as I am best pleased with them.

DANIEL GERBER.

Oakwood, Wis., Jan. 10, 1892.

Not an Average Honey Season.

The past season has not been an average honey season in this locality. The first blossoms from which the bees gather surplus in my locality were locust, and they did very well on them. Then comes the poplar, and this was an extra good year for it. Closely following poplar, the white and red clover blossomed, and they only gathered about half of an average crop. My 50 colonies gave me above 2,100 pounds of surplus up to June 25; then they commenced on honey-dew, and gathered 25 pounds per colony. By Sept. 1, most of the hives had very little honey or honey-dew; the golden-rod and asters commenced to bloom, and from this source they gathered sufficient to winter on. I find that the black bees do not gather honey from asters like the Italians.

H. P. FAUCETT.

Dilworthtown, Pa., Jan. 18, 1892.

Bee-Keeping in Texas.

Bees did fairly well here the past season. I had 30 colonies, Spring count, increased them to 60, and obtained 2,500 pounds of honey, all extracted except about 200 pounds which was in one-pound sections. The extracted-honey I sold for 10 cents per pound, and that in one-pound sections for 15 cents per pound. My bees would have done better if I had transferred them earlier. They were in box-hives, and I transferred them into movable-frame hives. I had some colones that gathered over 100 pounds per colony. This is a good country for bees and honey, and I can sell at home all that I can produce. Bees are wintering well here, all having gone into winter quarters with plenty of stores. We do not have to put our bees into cellars here—they all winter on the summer stands. This has not been a hard Winter yet—hardly any ice so far.

R. S. CREECH.

Ennis, Tex., Jan. 21, 1892.

Gable Roofs for Hives.

On page 104, the question is asked, "Which is the most desirable for hives—a flat cover or a gable roof?" Nearly all favor the flat roof, but they do not state the reason why. I would like to know why they prefer them. I am using gable roofs, and like them very much.

JOHN A. ROHN.

Tippecanoe City, O.

[Flat covers are more convenient for handling, transporting or packing. About the only reason for using gable roofs for hives is, that the water may quickly run off. By slightly tipping the hives to the front, that can be avoided, and the principal excuse for having gable roofs to hives is done away with.—ED.]

Honey-Dew for Winter Stores.

My bees at present are in fair condition, on the summer stands, with no protection except a wind-break of lumber, and covered. They have plenty of stores to winter on. Those that did not have plenty in the Fall, I fed honey-dew, of which I had an abundance; and that was about all the bees gathered last year. However, I got some very nice white honey in July. If bees winter well here this Winter, it is not necessary to fret hereafter about the kind of stores they have to winter on.

LEE POWELSON.

Batavia, Iowa, Jan. 22, 1892.

Bees Need Protection.

My bees are in winter quarters; those in 10-frame, 2-story simplicity hives have the upper stories packed with forest leaves; the bees were in good condition. Those in 8-frame 1-story simplicity hives have dry goods boxes for the outer shell, and are packed with leaves; they are in fine condition. Those in 1-story 8-frame simplicity hives have no protection; the combs are damp, and the bees have diarrhea, and are in bad condition. Bees must have protection.

J. F. Michael.

German, O., Jan. 25, 1892.

Bees Quiet and Doing Well.

I had 50 colonies of bees in the Spring, and by natural swarming they increased to 80. I got 2,000 pounds of honey. There was considerable white clover, and I expected a good crop of honey, but it turned out differently towards the middle of the Summer. My bees are all in good condition now; they are just as quiet as they can be, and I think that they will come out well in the Spring.

Fred Bott.

Wabasha, Minn.

Wavelets of News.

Honey as Medicine.

Comparatively few, today, know the great value of honey both as food and medicine. Were its value as a medicine thoroughly known it would displace in thousands of families the domestic remedies or quack compounds now depended upon by them as cure-alls.—*Exchange.*

Mice Entombed in Wax.

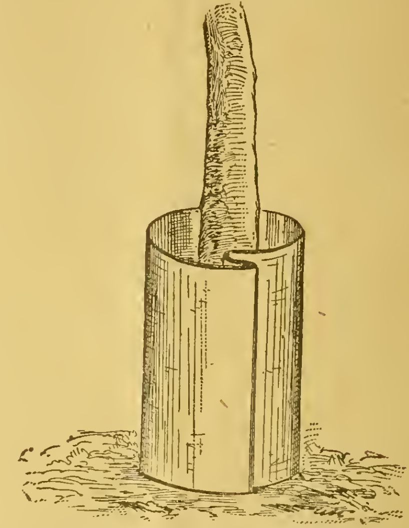
While examining his bee-hive, W. V. Smith, of Garnett, Kans., found two mice in one hive that had got in to rob the bees, which the bees had succeeded in killing, and being too large for them to drag out, had embalmed them in wax. They were as perfect as if they had been sealed the day they were found.—*Field and Farm.*

Fuel for Smokers.

Some find paper so useful in making smoke for quieting bees that they buy it in large rolls. To get it in shape to use in smokers take a stick one-half inch square and three feet long, and roll the paper around the stick until it is of sufficient size to fill the barrel of the smoker. Let an assistant tie a string around the roll every five inches, then withdraw the stick, and saw up the roll into six short ones, and they are ready for use. When plenty of rotten wood of the right kind is handy most bee-keepers will probably prefer to use it; but where wood of the right kind is scarce this paper is excellent.—*Stockman and Farmer.*

Protecting Trees from Mice.

Small trees, or those newly set, may be protected from mice in winter with small compact mounds of earth; but these cannot always be made on home grounds or indoor yards, in which case a roll of sheet tin may be easily and quickly placed about the stem, as represented in the cut. The mice will not climb up this tin protector.



PROTECTING A TREE WITH SHEET TIN.

Suitable tin sheets may be purchased for five cents each. These may be bent into shape about a large stick or pole and then placed in position around the tree with a few seconds' work, their elasticity bringing them into place.—Country Gentleman.

☞ The Ohio State Bee-Keepers' Association will hold its next annual meeting at the West-End Turner Hall, on Freeman Avenue, Cincinnati, O., from Feb. 10 to 12 inclusive, 1892, beginning at 10 a.m. Wednesday, Feb. 10. All local associations should endeavor to meet with us or send their delegates. Those intending to be present, will please send their names to the Secretary, at their earliest convenience. The President will endeavor to get reduced railroad rates, and also reduced rates at hotels. The programme will soon be issued, and all particulars published.

C. F. Muth, Pres., Cincinnati, O.
S. R. Morris, Sec., Bloomingburg, O.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

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On larger Advertisements, discounts will be stated, upon application.

Advertisements intended for next week must reach this office by Saturday of this week.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

☞ Send us *one new* subscription, with $1.00, and we will present you with a nice Pocket Dictionary.

☞ The date on the wrapper-label of this paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to pay for another year.

☞ Systematic work in the Apiary will pay. Use the Apiary Register. It costs:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

☞ As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.

YOU NEED an Apiary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for $1.25; or for 200 colonies for $1.50. *Order one now.*

Supply Dealers desiring to sell our book, "Bees and Honey," should write for terms.

We Club the American Bee Journal and the Illustrated Home Journal, one year for $1.35. Both of these and Gleanings in Bee Culture, for one year, for $2.15.

If You Have any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time.

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

When talking about Bees to your friend or neighbor, you will oblige us by commending the BEE JOURNAL to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the Convention Hand-Book, by mail, postpaid. It sells at 50 cents.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club.*
The American Bee Journal	$1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	2 00	1 75
The Apiculturist	1 75	1 65
Canadian Bee Journal	1 75	1 65
American Bee-Keeper	1 50	1 40
The 7 above-named papers	6 00	5 00
and Langstroth Revised (Dadant)	3 00	2 75
Cook's Manual (1887 edition)	2 25	2 00
Quinby's New Bee-Keeping	2 50	2 25
Doolittle on Queen-Rearing	2 00	1 75
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 60	1 50
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 50	1 35
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
Toronto Globe (weekly)	2 00	1 70
History of National Society	1 50	1 25
American Poultry Journal	2 25	1 50
The Lever (Temperance)	2 00	1 75
Orange Judd Farmer	2 00	1 75
Farm, Field and Stockman	2 00	1 75
Prairie Farmer	2 00	1 75
Illustrated Home Journal	1 50	1 35
American Garden	2 50	2 00
Rural New Yorker	3 00	2 25
Nebraska Bee-Keeper	1 50	1 35

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

◆

If You Want to know how Queens are fertilized in upper stories, while an old Queen is laying below—how to *safely introduce* Queens at any time when bees can fly—all about different bees, shipping Queens, forming nuclei, multiplying or uniting colonies, etc.—send us $1.00 for "Doolittle's Queen-Rearing;" 170 pages; bound in cloth, and as interesting as a story.

◆

Trip-Hammer advertising is the kind that creates industries that make us marvel at their magnitude. How long would it take to shape the hot iron if a stroke was given this week and another six months hence? Constant pounding is what does the business.

A Good Medium of communication between those who have something to sell and buyers is of inestimable value. Here is the testimony of one who has just "got there." It is C. K. Reading, of Nashville, Tenn., who had a small advertisement in the AMERICAN BEE JOURNAL for a few weeks, and last week wrote us as follows:

"Please keep my advertisement out until further notice, as I am about run to death in that line. The AMERICAN BEE JOURNAL is a good paper for an advertiser. C. K. READING."

◆

Winter Problem in bee-keeping; by G. R. Pierce, of Iowa, who has had 25 years' experience in bee-keeping, and for the past 5 years has devoted all his time and energies to the pursuit. Price, 50 cents. For sale at this office.

◆

I Know an advertiser, says the *Shoe Recorder*, which took 10 per cent. of last year's profits and invested it in advertising. That is a good idea, and one that pays well.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

WANTED—Bee-keepers to send for my price and samples of Comb-Foundation.
JACOB WOLLERSHEIM, Kaukauna, Wis.
1Atf

FOR SALE—Twelve barrels of choice extra Early Seed Potatoes. Cheap. Address,
5A3t WM. H. FORD, Marshalltown, Iowa.

WANTED—A situation in an apiary or hive manufactory. I am willing to make myself generally useful. J. W. TEFFT.
5Atf 318 Swan St., Buffalo, N. Y.

WANTED—To exchange Bees, Honey and Supplies for Cash or Tinners' Tools.
J. A. BUCKLEW, Warsaw, Coshocton Co., O.
5Atf

WANTED—Bee-keepers in Mo., Kans., Neb., Ark. & Tex. to write for Circular. Newest & best Hive out. Emerson Abbott, St. Joe, Mo.
6Atf

HONEY AND BEESWAX MARKET.

CHICAGO, Jan. 30.—Fancy white comb is selling at 16c.; other grades 10@14c. Extracted slow demand, 6½@7½c. Beeswax, 26c.
S. T. FISH & CO., 189 S. Water St.

NEW YORK, Jan. 29.—Demand is limited, and supply sufficient. No demand for 2-℔ sections. We quote: Comb—Fancy white, 1-lb., 13@14c; off grades, 1-lb., 10@11c; buckwheat, 1-lb., 9@10c. Extracted—Basswood, 7c; California, 7@7½c; buckwheat, 5½@6; Southern, 65@70c ⅌ gal. Beeswax, scarce and firm, at 26@28c.
HILDRETH BROS. & SEGELKEN,
28-30 West Broadway.

KANSAS CITY, Mo., Jan. 30.—Demand and supply are fair. We quote: White comb, 1lb., 15@16c; dark, 10@12c. Extracted—White, 7c; dark, 5@6c. Beeswax, is in light supply, and demand good, at 23@26c.
CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI, Jan. 29.—Demand is good for family use, but very slow from manufacturers. Choice white comb, 14@16c. Extracted, 5@8c. Beeswax is in good supply and fair demand, at 23@25c for good to choice yellow.
C. F. MUTH & SON,
Cor. Freeman & Central Aves.

NEW YORK, Jan. 30.—Demand for honey is fair, with adequate supply. We quote: Fancy 1-℔., 14c; do 2-℔., 12c; fair, 10@12c; buckwheat, 9@10c. Extracted—Clover and basswood, 7@7¼c; buckwheat, 5¾@6c. Beeswax, in fair demand, with adequate supply, 26@27c.
CHAS. ISRAEL & BROS., 110 Hudson St.

KANSAS CITY, Mo., Jan. 30.—Demand poor, with large supply of comb. We quote: Comb—1-lb. fancy, 15@16c; dark, 12@13c. Extracted—White, 7@7½c; dark, 5@6c. Beeswax—None in market; light demand.
HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, Jan. 30.—The demand for comb-honey is fair and supply moderate. We quote: Comb, 12@13c; extracted, 7@8c. Beeswax in good supply, and light demand, at 25@26c.
M. H. HUNT, Bell Branch, Mich.

CHICAGO, Jan. 30.—Demand good and supsufficient. We quote: Comb, 14@16c. Extracted, 6@7c. Beeswax, in light supply, and good demand, at 25@27c.
J. A. LAMON, 44-46 S. Water St.

MILWAUKEE, Jan. 30.—Demand fair and supply good, except of the best quality. We quote: Comb—choice, 1-lb., 15@16c; fair, 13@14c; dark, 10@12c. Extracted—white, in barrels or kegs, 7½@8c; dark, 6@6½c. Beeswax, 23@28c.
A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO, Jan. 28.—Demand good, supply small. We quote: Comb, 1-lb., 10@14c. Extracted, 5½@6½c. Beeswax, in light supply and good demand, at 23@25c.
SCHACHT, LEMCKE & STEINER,
16 Drumm Street.

MINNEAPOLIS, MINN., Jan. 29.—Demand is moderate, supply ample, and shipments coming in freely. We quote: White comb, 17@18 cts.; dark, 14@15c. Extracted, 10@10½c.
STEWART & ELLIOTT.

CHICAGO, Jan. 30.—Demand is now good, supply is not heavy. We quote: Comb, best grades, 15@16c. Extracted, 6@8c. Beeswax, 26@27c. R. A. BURNETT, 161 S. Water St.

BOSTON, Jan. 28.—Demand is light, supply ample. We quote: 1-℔. fancy white comb, 14@15c; extracted, 6@7c. Beeswax, none in market.
BLAKE & RIPLEY, 57 Chatham St.

ALBANY, N. Y., Jan. 29.—Demand is slow, supply not liberal, as stock is mostly in. We quote: White comb, 12@15c; buckwheat and mixed, 8@12c. Extracted — Light, 7@7½c; dark, 6@6½c. Beeswax—Supply light, and demand steady, at 28@29c.
H. R. WRIGHT, 326-328 Broadway.

NEW YORK, Jan. 29.—Demand is light, and supply large, except buckwheat comb. We quote: Fancy white comb, 12@14c; buckwheat, 9@11c. Extracted—Clover and basswood in good demand at 6½@7c; buckwheat ind emand at 5@6c. Beeswax in fair demand at 26@28c.
F. I. SAGE & SON, 183 Reade St.

NEW YORK, Jan. 30.—Demand moderate, and supply reduced, with no more glassed 1-℔ nor paper cartons, 1-℔. We quote: Comb, 1-℔, 14@15c. Extracted—Basswood, 7¼@7½c; buckwheat, 5½@6¼; Mangrove, 68@75c per gal. Good demand for dark extracted honey. Beeswax, in fair supply, with small demand, at 26@27c.
F. G. STROHMEYER & CO., 122 Water St.

Supply Dealers should write to us for wholesale terms and cut for Hastings' Perfection Feeders.

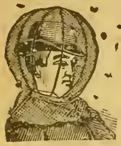
Calvert's No. 1 Phenol, mentioned in Cheshire's Pamphlet on pages 16 and 17, as a cure for foul-brood, can be procured at this office at 25 cents per ounce, by express.

Get a Binder, and always have your BEE JOURNALS ready for reference. We will mail you one for 50 cents.

Money in Cabbage and Celery.—"Blood will tell." Good crops cannot be grown with poor strains of seed.

For 16 years Tillinghast's Puget Sound Cabbage, Cauliflower and Celery Seeds have been gaining in popularity. The most extensive growers all over the Union now consider them the best in the world. A catalogue, giving full particulars regarding them, will be sent free to any one interested. When writing for it, enclose 20 cents in silver or postage stamps, and we will also send "HOW TO GROW CABBAGE AND CELERY," a book worth its weight in gold to any grower who has never read it. Address
ISAAC F. TILLINGHAST,
18A16t La Plume, Pa.

GLOBE BEE-VEIL



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A center rivet holds 5 spring-steel cross-bars like a globe to support the bobinet Veil. These button to a neat brass neck-band, holding it firmly.

It is easily put together; no trouble to put on, or take off. An absolute protection against any insect that flies. Will go over any ordinary sized hat; can be worn in bed without discomfort; fits any head; does not obstruct the vision; folds compactly, and can be carried in the pocket; in short, it is invaluable to any one whom flies bother, mosquitos bite, or bees sting.

Extra Nets, 50 cents each.

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We will send this Veil and the Bee Journal one year for **$1.75.** Or, we will give the Veil **Free** for three (3) **New** Subscribers to the Bee Journal, with $3.00 to pay for them.

Subscriptions to the Home Journal may be included in all Clubs, counting two (2) Home Journals as equal to one (1) Bee Journal.

THOMAS G. NEWMAN & SON,
199, 201, 203 East Randolph St., CHICAGO, ILLS.

$300 CASH!

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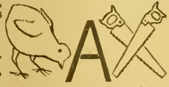
It is the name of a Tribe of Indians.

ALL HAVE A CHANCE TO GUESS.

We will give $100 for the first correct answer received; $50 for second; $25 for the third; $10 each for the next five; and $5 each for the next fifteen.



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Remit with answer before March 1st., when the prizes will be awarded and names published. NEWMAN & SON, 201 Randolph St., CHICAGO, ILL

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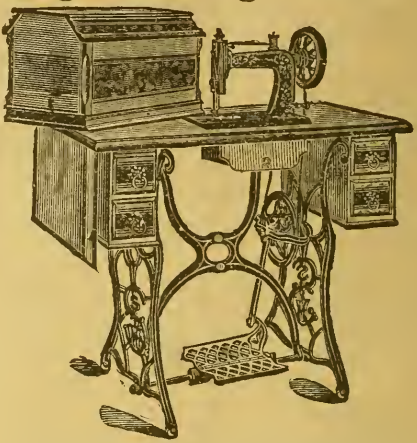

Each machine is THOROUGHLY TESTED to see that it is perfect before leaving the Factory, and the manufacturers GUARANTEE EACH MACHINE FOR FIVE YEARS.

ALL THE MATERIAL entering into the construction of these machines is of the very best, and all the parts are nicely fitted. The wood work is of Black Walnut, Oil Polished. The iron work is nicely ornamented and Japanned, and they are an ornament in any lady's room. With each machine we include a **full set of attachments** which have formerly sold for as much as we now offer the machine, attachments and all.

These attachments include one Johnson's Foot Ruffler, one set of Hemmers, one Tucker, one Foot Hemmer or Friller, one Package of Needles, six Bobbins, one Screw Driver, one Oil Can, extra Check Spring, one Gauge, one Gauge Screw, one Wrench, and an Instruction Book, which will enable one not accustomed to running a machine, to soon learn.

Each machine is crated and delivered at the Express office or Freight depot in Chicago, and will go safely to any part of the country. The weight is about 100 pounds, and the cost of shipping within 500 miles of Chicago is from 50 cents to $1.00; to the Atlantic Coast, the Gulf or about the same distance West, about $1.50; and about double this to the Pacific Coast.

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ONE DOLLAR PER YEAR.

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THOMAS G. NEWMAN,
EDITOR.

Vol. XXIX. Feb. 11, 1892. No. 7.

Editorial Buzzings.

An Ache in your back
As you toss in your bed.
An ache in your head
As if it would crack—
That's the grippe.

A taste in your mouth
Like a buffalo coat.
A feeling you note
Of lameness and drouth—
That's the grippe.

A burning sensation
That makes your eyes weep,
A struggle to keep
Back a vivid oration—
That's the grippe.
—Somerville Journal.

◆

Space at the World's Fair must be applied for on or before July 1, 1892.

◆

Mrs. L. Harrison has gone to St. Andrews Bay, Fla., for her health, and we hope that she will find it in that land of flowers and sunshine.

The Election of officers for the National Bee-Keepers' Union is again concluded, and has resulted as before with the re-election of the old officers. There were 204 ballots received; of these 115 were for those who had heretofore served in that capacity from the organization of the Union. Eighteen were blank, and 71 were scattering. For President, James Heddon received 144 votes, scattering 42. For General Manager, Thomas G. Newman received 174, scattering 8.

The "scattering" votes for Vice-Presidents, although they were cast for those who would have made excellent officers for the Union, showed no "unity of action"—and therefore were unavailing—the largest number for any one officer being 5 votes. If Dr. Miller's suggestion about making nominations, had been made earlier, the result might have been otherwise.

Notwithstanding the earnest effort made by the officers themselves to have a change in "the Official Board," no change has been made! This is very flattering, to say the least. It gives the most emphatic "vote of confidence" possible, and will, no doubt, encourage all to continue their labors with untiring zeal.

As General Manager we will do the best we can, consistent with our limited time and energies, to see that no injustice is done to the members of the Union, because of the prejudice, jealousy and ignorance of persecutors; and, at the same time, we will endeavor to defend the rights of the pursuit generally.

◆

Gloves that have become dirty or covered with propolis, after using in an apiary, says the *Southern Cultivator*, can be easily cleaned by soaking a day or two in strong lye made from potash or wood ashes, or by soaking in water saturated with quick-lime. The propolis comes off easily after such soaking in the solution.

Bee-Keeping is no more a bonanza than farming. Success depends upon wisdom, patience and perseverance, so says an exchange, but it then adds:

> The Department of Agriculture at Washington has taken hold of the bee-keeping industry in earnest. It intends to interest the farmers in bee-culture. For this purpose it has added to its scientific staff an expert in apiculture. We will now have experiments conducted on scientific principles, and the report of the department will be exceedingly valuable.

We shall see about that hereafter. What would be the most valuable now, would be to insure nectar in the flowers, and for "Old Probabilities" to give us suitable weather for nectar secretion. Of what avail are the bees if there is no honey for them to gather? The bees "are all right"—let the Department of Agriculture experiment with the flowers, the weather and the atmospheric conditions.

◆

La Grippe has had both Mr. and Mrs. Doolittle under its sway, but we are glad to state that both are now improving. It treated our friends to the most severe illness they have had for 24 years past, since their marriage.

◆

An Iowa bee-keeper tried to winter his bees on honey-dew. The usual result follows. His bees are dying by hundreds, and there will be few left by Spring. Neither bees or men have any use for honey-dew.—*Michigan Farmer.*

◆

Increasing in Usefulness—that is what the Florida *Globe* says about the AMERICAN BEE JOURNAL. It graciously remarks that "it has reached the respectable age of 31 years. During this long period, it has been doing noble service in the interests of bee-keeping. Under the management of the present editor, Thomas G. Newman, it has steadily increased in its usefulness." Thanks for the compliment.

Ask the Children whether "bread and honey" is not better than bread and butter. Besides consulting their tastes, as a matter of fact honey is healthful and economical. An exchange remarks thus:

> Honey is not alone delicious, but it is a useful, concentrated food. Its effects as a tonic in numerous instances are marked. In cold weather it does much to keep the system warm and in comfortable working condition. If the masses knew more, practically, of the value of honey for food, it would be in greater demand, to the exclusion of oleomargarine.

◆

The Australian colonies are admitted to the Universal Postal Union. The former rate of postage on a single queen to these colonies was 96 cents. It is estimated that the rate under the new ruling will be about 40 cents. Comparing this with the cost in our own country a vast difference is seen. Take for instance the new Benton shipping cage, with it a queen can be mailed to any part of the United States for one cent.

◆

The Dairymen of Illinois will meet at Kewanee, Henry county, on Feb. 24, 1892. The object of the Association is to develop the dairy interests of the State. Some of the best and most progressive dairymen and creamerymen will read essays and discuss questions of practical importance. For particulars address W. R. Hostetter, Secretary, Mt. Carroll, Ills.

◆

Sections of uniform size would facilitate the marketing of honey, increase its popularity with merchants, and create a demand for it among consumers.

◆

Catalogues for 1892 have been received as follows:

Charles White, Farmers' Valley, Nebr.
George E. Hilton, Fremont, Mich.
W. T. Falconer Mfg. Co., Jamestown, N. Y.
Colwick & Colwick, Norse, Texas.

Prof. O. Clute, President of the Michigan Agricultural College, is in California, on a visit. For a time he was the guest of Col. John P. Irish, formerly of Iowa, and who is so well known as a journalist and writer on political economy.

Col. Irish's home is in Oakland, a few miles from the University of California, at Berkeley, where the Agricultural College is also located, and in which Prof. Clute is interested. No doubt the Professor, who, by the way, is no less a person than "John Allen," of bee literature fame, will explore the paradise of the "blessed bees" while in the Golden State.

California is enjoying the distinction of having two leading and well-known members of the Michigan Agricultural College within its confines, namely, Prof. A. J. Cook, besides the one above named. The former is now in the southern portion of the State; the latter was in the central part, where the great agricultural, horticultural and commercial interests are centering, but is now *en route* for home.

To see California in these days, the traveler must do the greater part of the State, for its climate and resources are greatly diversified; they are scattered over its 700 miles of territory.

Some people think that the south is *California*, because of its well advertised climate—such is not the fact, however. The "Switzerland" of California, is in Lake County, a hundred miles or so north of San Francisco. As this delightful spot is not yet reached by railroads, though they are pushing that way, it is little frequented.

The first apples in the State grew in Lake County; oranges grow there, too, as they do in any part of the State; bees also do well anywhere, though the southern part has the distinction of having the celebrated sages for partial bee-pasturage. Some of the northern and central counties have a low growing blue sage, in limited quantities, which the bees work upon.

Reporters who know nothing about bee-keeping often make ludicrous mistakes in reporting convention matter. One of the Grand Rapids, Mich., papers, referring to E. R. Root's essay on the use of a bicycle for out-apiary trips, as published on page 113, remarks thus:

> E. R. Root has used the bicycle to good advantage. On it he has gone seven miles into New York State, and visited thousands of apiaries. He thought the bicycle a good thing for the bee-keeper.

Thousands of apiaries within seven miles is such a terrible blunder that Mr. Root makes the following comments in *Gleanings:*

> A bee-keeper would naturally think that apiaries must be pretty thick along that *seven-mile route* in New York State, or else that we were greatly given to exaggeration. It is too bad that it is not true, for here would have been a grand chance for the advocates of bee-legislation, or priority of location.
>
> The reporter had doubtless heard us use the word "thousands" as referring to colonies, and, as nearly as he could recollect, it was *thousands of apiaries.* Whew! This is worse than Alley's version of the North American.
>
> We would suggest the propriety of each one, who prepares an essay or paper for convention, writing out a brief digest of it—yes, two or three of them, to hand to reporters. They will appreciate the favor, and will be glad to give a correct version.
>
> It is the fault of bee-keepers, not of the reporters, that such garbled notes appear in the daily press. Bee-keepers should avail themselves of the free notices in regard to our conventions; but let us by all means have correct reports.

It is a good idea to have a "brief digest" of essays prepared by their authors, to give to reporters. Such would save the printing of a great amount of nonsense.

The Imperial Band, of the Emperior William, of Germany, will attend the World's Columbian Exposition, having already obtained permission to do so.

The World's Columbian Exposition will open to the public on May 1, 1893 and close on Oct. 30.

The Fair Buildings are progressing nicely, and as required by Act of Congress, will be dedicated "with appropriate ceremonies," on October 12, 1892, the 400th anniversary of the discovery of America by Columbus. The exercises will occupy three days, beginning on the 11th and closing on the 13th with a grand dedication ball. The committee having the matter in charge has planned to make the ceremonies most impressive in character. Something like $300,000 will be spent to secure this end. The President of the United States and his Cabinet, the Senate and House of Represenatives, the Governors of several States with their staffs, and representatives of all foreign nations will be invited to be present. The mobilization of 10,000 militia and several thousand regulars is planned, as is also an imposing civic and industrial display. In the evenings there will be a magnificent display of fireworks, and in the Park waterways a pageant of symbolical floats representing the "Procession of the Centuries." In the dedicatory exercises on the 12th, the completed buildings will be tendered by the President of the Exposition to the National Commission. President T. W. Palmer will accept them on behalf of that body and will at once present them to the President of the United States, who will fittingly respond. The dedicatory oration will follow. Much attention is being given to the musical portion of the programme. This will include a dedicatory ode and orchestra marches written for the occasion. These and other numbers, including "America" and "Star Spangled Banner" will be rendered with full choral and orchestral accompaniment.

Congress is now in session, and many of our readers want to know what is being done in the agricultural line. This is briefly set forth in the following letter from Washington:

Petitions are flooding both houses of Congress from every city, village and organization. Butter makers naturally want oleomargarine subjected to State laws; several Granges of the Patrons of Husbandry lift their voices in favor of the pure lard and the anti-option bills; while the National Grange sends resolutions favoring the free delivery postal service in rural districts. All these petitions are referred to the proper committees, where it is doubtful if they will ever again see the light of day.

Mr. Parrett (Ind.) has introduced a Bill to exempt from duty bags for grain, bagging for covering cotton, cotton ties, fence wire, cotton spool-thread, binding twine, horseshoes and nails, needles, and all implements of husbandry; and Mr. Bretz (Ind.) to place all agricultural implements on the free list. Mr. Crawford (N. C.) has a Bill amending the legal restrictions now placed on the sale of leaf tobacco by the farmer; and Cowles, of North Carolina, and Tucker, of Virginia, Bills repealing the taxes on tobacco in all forms. Mr. Hatch, of Missouri, is seeking the incorporation of the Society of American Florists; and Mr. George (Miss.) inquires into the present depressed condition in cotton.

In the Senate, Mr. Stanford called up his Bill for the issue of paper currency in large quantities, and was followed at length by Senator Peffer, who advocated its loaning to farmers on land security, and who presented the well-quoted Alliance platform, and the Patrons' Memorial.

No action was reached, however, and it is doubtful if any will be at this session. It may be interesting to know that the local committees have secured accommodations for 30,000 visitors at the G. A. R. encampment here in September next.

Convention Notices.

TEXAS.—The 14th annual meeting of the Texas State Bee-Keepers' Association will be held at Greenville, Hunt Co., Tex., on Wednesday and Thursday, April 6 and 7, 1892. All interested are invited. A. H. JONES, Sec.
Golden, Wood Co., Tex.

PENNSYLVANIA.—The tenth semi-annual meeting of the Susquehanna Co. Bee-Keepers' Association will be held at Bullard's Hotel in Brooklyn, Pa., on Thursday, May 5, 1892, at 10 a.m. All are cordially invited.
Harford, Pa. H. M. SEELEY, Sec.

☞ The Ohio State Bee-Keepers' Association will hold its next annual meeting at the West-End Turner Hall, on Freeman Avenue, Cincinnati, O., from Feb. 10 to 12 inclusive, 1892, beginning at 10 a.m. Wednesday, Feb. 10. All local associations should endeavor to meet with us or send their delegates. Those intending to be present, will please send their names to the Secretary, at their earliest convenience. The President will endeavor to get reduced railroad rates, and also reduced rates at hotels. The programme will soon be issued, and all particulars published.

C. F. MUTH, Pres., Cincinnati, O.
S. R. MORRIS, Sec., Bloomingburg, O.

Queries and Replies.

Queens with Clipped Wings.

Query 805.—1. Are queens with clipped wings more liable to be superseded by the bees, than those not so clipped? 2. If so, what per cent. more are likely to be lost?—L.

Yes.—J. P. H. Brown.

1. I think not.—C. C. Miller.

1. My experience says "no."—G. M. Doolittle.

After 20 years' experience I answer "no."—M. Mahin.

1. I believe not, and if I *knew* they were, I would have their wings clipped. —A. B. Mason.

I do not clip the wings of my queens, so I cannot say.—H. D. Cutting.

1. No, unless through careless handling the queens are frightened and killed at once.—Eugene Secor.

I have never practiced clipping queens' wings, hence I am no authority upon that subject.—J. M. Hambaugh.

1. No. I am sure of this. An experience of 20 years with queens with clipped wings makes me feel certain.—A. J. Cook.

1. Yes. 2. Perhaps 5 per cent.; though the loss is less than would result from absconding swarms, etc.—Mrs. J. N. Heater.

If the clipping is well done I believe there is no perceptible difference. One wing three-fourths off is enough. 2. Certainly less than one per cent.—P. H. Elwood.

Yes, when first introduced, or when first clipped. After the bees become used to them, they are safe.—Dadant & Son.

Yes. With my experience they are much more apt to be superseded. As to percentage excepted—5 to 10 times more apt.—James Heddon.

No. I used to think so, but after much experience with queens having clipped wings, I have decided that clipping makes no difference.—J. A. Green.

I prefer to use queen-traps to clipping queens' wings. It is too much trouble to bother with queens having clipped wings.—G. L. Tinker.

1. It is my judgment that they are. Clipping is crippling, and I believe that all animals and insects, like the human family, like to see a perfect individual. 2. I cannot say.—Mrs. L. Harrison.

No, not if the clipping is properly done. Out of many hundreds I never had but one that I had any reason to suppose was superseded for that reason, and she had all four wings cut off short. —R. L. Taylor.

1. Yes, that is my experience. 2. I do not know. I have long since abandoned this practice, as by the use of drone-traps and self-hivers, there is no longer any use for it.—C. H. Dibbern.

1. I guess not. I shall risk it at any rate. I have had queens with both wings cut short that were tolerated for a long time, but it is not necessary in clipping to remove more than half of the wing, or wings, on one side, which does not disfigure them much.—S. I. Freeborn.

If a colony swarms in the absence of the apiarist, with a clipped queen, she would stand about one chance in three of being lost. I do not think she would be superseded for any other reason. We clip all of our queens. Better lose the queen than the swarm and the queen.—E. France.

1. According to my experience and observation, they are. But this does not settle the question of practicability. When you include the losses of unclipped queens (and bees, too), in the swarming season, the chances are in favor of the clipped queens. Such is my experience after trying both ways for many years. —G. W. Demaree.

1. For myself, I think they are, and especially where natural swarming is allowed. I find that where swarms issue two or three times, and return because the queen does not go with them, that they are very apt to supersede her. 2. I do not know how the percentage can be figured; and any attempt to figure it would be mere guess-work.—J. E. Pond.

1. I think not. 2. There is no larger per cent. of queens with clipped wings lost by supersedure, than of queens not clipped. But I think there are more clipped queens lost in handling the frames, for if a queen's wings are clipped very short, she cannot handle herself quite so well on a comb after it

is taken from the hive. Her wings seem to be a support to her, especially when she is large, and in full laying condition.—MRS. JENNIE ATCHLEY.

They are probably not more likely to be superseded than those not having the wings clipped—but if they were more liable to do so, the advantages would probably more than counterbalance such a disadvantage.—THE EDITOR.

Topics of Interest.

No Bounty Wanted on Extracted Honey.

M. M. BALDRIDGE.

There are some bee-keepers who think they ought to have a Government bounty of 2 cents per pound on extracted-honey. Now what honey producers need most is not a Government bounty, but a *stiffening of the back bone*. Something that will encourage them to sell their extracted-honey to consumers at a decent price. When they wake up to this decision they can get along very nicely without any help from Uncle Sam.

I, for one, do not ask any aid from the United States to enable me to get a satisfactory price for extracted-honey, nor for honey in the comb.

My price on honey has not been changed one iota by any act of Congress in regard to sugar, whether made from cane, beets or maple, and I do not intend that it shall be! Many wonder why it is that I can get a good paying price for my honey, especially the extracted. They do not seem to understand why it is that I can get 20 to 25 cents per pound for such honey when they cannot get one-half that price, and then not very readily.

To me the reason is very simple, namely: Because I ask it, and will not take a cent less! And, besides, I make my customers believe that the honey I sell is worth what I ask for it. Now this is not a difficult thing to do, when one has learned the lesson well, and has become somewhat of an "expert" in the art of selling honey to consumers.

And this art need not be confined to the writer alone, as others can do as well, and perhaps better. This I know from experience, as I have students in my employ who are entirely satisfied with what they have done, and are still doing.

One great objection to a Government bounty for extracted-honey alone is this: It would stimulate bee-keepers to produce more liquid-honey and less comb-honey. Now the reverse is what is needed, and more desirable. There is now too much liquid-honey produced, and not enough in the comb. That is, the proportion is wrong already. It will be soon enough to stimulate the production of liquid-honey when producers and all others, who make it their business to give away extracted-honey for a mere trifle, as they do to-day. Once make up their minds to fix the price at a common-sense figure, and then adhere to it.

St. Charles, Ills.

Reason vs. Instinct.

J. S. BRENDLE.

As this interesting subject has, apparently, not yet been exhausted, I will endeavor to present a few additional thoughts, even at the risk of some repetition.

Reason is the distinctive attribute of man; as instinct is that of the animal, and plastic power that of the plant. Instinct is plastic power modified by feeling, and reason is plastic power and feeling modified by self-consciousness. In other words, the animal has plastic power as well as instinct, and man has plastic power and instinct as well as reason. The lines of demarkation between the 3 kingdoms are distinct and unmistakable. The difference between man and the animal is not one of quantity or degree, but one of kind, and is just as clear and pronounced as that existing between the animal and the vegetable. Reason and will, united in man, constitute his personality, and distinguish him absolutely from the lower orders of creation.

Again, the animal is a sentient creature; while man is a sentient, rational creature. Thus writers of natural history and mental philosophy have ever defined the two genera. The animal has sensation and perception in common with man, but lacks self-consciousness, which is the leading characteristic of the latter. Thought cannot be predicated of the animal.

Man is more than a mere rational animal; otherwise the loss of reason would immediately relegate him to the category of animality, which is not the case. Of course, absolute mental vacuity, or total loss of reason in a human being is inconceivable; and mere similarity of physical organs and functions is not, of itself, sufficient to degrade man to the level of the brute, or to elevate the latter to the plane of the former.

There is such a thing as animal ingenuity, with which some people ignorantly confound reason; but it is only an inferior kind of instinct, or something between instinct and plastic power. It is not found in the higher orders of animals, or such as are possessed of the five senses; but is manifested by nearly all insects and amphibians, and by many birds.

Among familiar insects, the bee has her equal in ingenuity in the wasp, the spider, the ant, the butterfly, and the common bug or beetle, all of which exhibit marvelous productions. All these productions are but the result of plastic power guided by feeling; and it is the same power, in a modified form, that builds the cell of the bee and shapes and colors the petals of the rose. This is also true of the ingenuity of birds and amphibians.

Instinct is not confined to phenomena exhibited by animals at birth, or else no species would ever be propagated. The habits of many animals, notably insects, often change through life. Both instinct and reason pass through a process of development. The former only comes into full play when the organs of the body are mature; the latter only rises to its full stature where a mind, under perfect discipline, is enshrined in a a sound and mature body.

True, the human brain is the seat of the mind, and the animal brain the seat of instinct; but the presumption of rationality does not arise from the mere possession of brains. Nor do sensations of pleasure or pain prove either the presence or absence of intellect, although they are inseparable from animal life.

No animal has memory; for memory, in the general acceptation of the term, is that mental activity which finds a word for every conception, and recognizes a conception in its appropriate word. Reason and language are vitally connected, if not identical; and the Greeks had only one word for both.

Language implies the power of abstract thought or pure thinking, and thought is the activity of reason. Man, possessed of reason, has an innate desire for knowledge, which the bee, lacking reason, has not. Reason makes man progressive; instinct holds the bee in an unchanging orbit of existence. The bee has no history.

No animal can be said to judge; for they all act according to certain fixed rules, and that perfect adjustment of organs and functions, and that ready adaptation to changes of environment which characterizes animals, are of the very essence of instinct. Spiders construct webs before they have seen the flies to be ensnared thereby. Ducklings, hatched by a hen, take to the water at first sight. Bees store honey without the remotest conception of the coming of Winter. Birds hatched by artificial heat will fly as soon as they are fledged.

It is true that bees store and guard their honey as though they had an idea of time and property; but it is perfectly clear that they do this rather from an impulse of nature, than from a sense of need or right. Were this not so, man would steal as often as he makes use of their provisions without their permission.

Shaefferstown, Pa.

The Winter Record so Far.

WM. STOLLEY.

About the middle of October, 1891, my bees were packed "inside" the hive, for wintering on the summer stands.

While we had three quite cold days in November (on Nov. 17 even 6° Fahr. below zero), my bees did fly on six days during this month. December gave us also three zero days, and on five days in this month bees had good flights; the last one on Dec. 21.

The month of January (up until date) brought us some extraordinarily cold weather; in all eleven days, when the thermometer registed from zero away down to 40° Fahr. below.

On Jan. 3 my bees had a good flight, but from Jan. 10 to 19 inclusive, we had the eleven days of zero weather all in one stretch, and on Jan. 12 and 19 as much as 40° below zero. From the later named date on, we have had quite pleasant weather, and on Jan. 23, 24, 25, 28 and 29 the bees enjoyed good flights.

I took out all absorbents on top of the brood-chambers and dried them thoroughly in the sun; also cleaned out all dead bees from under the clusters in the hives, and now my bees are once more in the best possible condition to again stand another severe spell of extreme cold weather.

The loss in dead bees, so far, is comparatively light, and all colonies are in good trim, but then, severe and uncongenial weather in February, March and April may yet prove fatal to the best of them.

On Jan. 25, a large flock of wild geese passed, flying north, but in all probability these venturous flyers will soon pass over again in a southerly direction, complaining in their customary noisy way, of the cold reception they were treated to at their Summer haunts.

After the season for Spring dwindling is passed, I will report again.

Grand Island, Nebr., Jan. 30, 1892.

The Grading of Honey.

J. A. GREEN.

I must say that I am not at all satisfied with either of the systems of grading comb-honey that have been proposed. That adopted at the Northwestern convention was rather too exacting in some of its requirements, and in some respects was incomplete. I think this would be admitted by a good share of those who voted for it. At best, it was a compromise adopted with the expectation that it would be further revised before being accepted as a uniform system of grading. But while it placed the standard too high, I think the system adopted at the North American Convention went to the other extreme.

Any bee-keeper who is up to the times in the production of comb-honey can readily select, after a good yield from white clover, linden, or any other source of white honey, a large proportion of sections that are almost, if not quite perfect in every respect—such honey, in fact, as would be graded No. 1 according to the Northwestern scale. It pays to have such a grade; and any one who understands selling honey can readily get a fancy price for it. With this grade added I would not have much fault to find with the Albany system of grading.

There are excellent reasons for the establishment of a superfine grade of honey, and there are also good reasons for using names or letters instead of numbers, to indicate the grades, though I have always used numbers for all but the best, which I call "extra select," following with numbers 1, 2 and 3. My system of grading might be formulated about as follows, using letters advocated by the Albany committee:

Extra Select.—Light-clored honey, of good flavor; combs straight, well built out, of even thickness, and nearly uniform weight, attached to the section on all sides; all cells sealed, with white cappings, and with comb and sections unsoiled by travel-stain or otherwise.

"A" Grade.—Light-colored honey, of good flavor; combs straight and well built out, with cappings white, or but slightly amber-colored; one face of each comb perfect in appearance, fully sealed, except the line of cells touching the wood. The other side shall be perfect in color and sealing, or nearly so, and sections not badly soiled.

"C" Grade.—Honey of good quality. In this grade shall be placed all irregular combs, or those containing pollen, and all in which the capping is dark or considerably soiled. Sections must be nearly filled with few or no unsealed cells.

"M" Grade.—In this grade shall be placed all honey of inferior quality, all combs containing much pollen, or badly travel-stained, or otherwise objectionable. Sections must be at least three-fourths full, with one side well sealed.

The above is *my* system of grading—what I use in actual practice. I do not expect that it will satisfy everybody. In fact, I think we shall find it hard to establish any system that will be satisfactory in all parts of our country.

This is evident when we see that the Eastern men want the saffron-colored comb of the Mississippi bottoms placed in the third grade, while the men who produce it insisted at Chicago that it ought to be graded No. 1.

The Eastern men, too, want buckwheat honey graded by itself, though they do not seem to care about other kinds. I believe there is but little buckwheat honey produced in the West, though there are other kinds that deserve to be graded by themselves quite as much as buckwheat. As buckwheat honey is well known to the trade, it might be well enough to keep it in a grade by itself, though no doubt much honey is sold as buckwheat that was never near a buckwheat field.

But if we decide that there may be a first, second and third grade of each kind of honey, as was voted at Chicago, we do away with one of the principal objects of grading, and open the way to almost as many disputes and differences of opinion as were possible under the old system—or lack of it.

It will be difficult to make some bee-keepers understand why their first-class honey, gathered from autumn wild flowers should bring a lower price than another man's second or shird-class clover, although the commission man understands it perfectly. Would it not be better to put it in the second or third grade on the start, and so class it?

Again, it is undesirable that the selling value of comb-honey depends more upon its appearance than any other one quality—provided, of course, it has not an actually disagreeable taste. The kinds of honey are legion. Unless a man is familiar with all these varieties, which is something hardly possible, how is he able to make a guess at the value of honey offered him from another locality? Even if he is familiar with the kind of honey offered, there is much chance for misunderstanding, for the average bee-keeper is very much at sea with regard to the sources from which his honey was gathered.

Moreover, there are very few localities where any one variety of honey may be secured free from admixture. The varying nature of this admixture so changes the character of the honey, that what passes for white clover honey in one locality may be a very different article from the white clover honey of somewhere else.

If honey is graded according to my rules, and a sample of the honey sent in a small vial by mail, the purchaser may know just what to expect, or the commission man will be better able to inform the intending shipper what his honey will bring.—*Gleanings*.

My Experience in Bee-Keeping.

NATHAN MERCER.

During the last five years I have had bees, and have been quite successful. The first year, from 50 colonies, I extracted nearly 3,000 pounds of honey, and increased to 70 colonies. The next Spring I lost all but 30 colonies, and that season I secured no surplus honey, but increased to about 60 colonies.

The next Spring I had 46 colonies, from which I extracted that season nearly 10,000 pounds of clover and basswood honey, and increased to about 80 colonies.

I lost only 5 or 6 colonies the following Winter, but the next season I secured no surplus, though I increased to 159 colonies, and last Spring I had 106 colonies left, having had 120 in chaff hives, and the rest wintered in the cellar; 75 per cent. died in the cellar, and about 20 out of the 120 died outdoors. From 100 colonies I extracted, in 1891, 11,000 pounds of basswood honey, and have now 150 colonies in chaff hives, and 20 in the cellar, seemingly wintering nicely.

I greatly prefer wintering bees in chaff hives, and with them I am not troubled with swarming. As soon as the basswood flow is about over, I begin dividing them, taking off the surplus combs, of which there are 14 on top and 10 in the brood-chamber. I also have about 4 combs in the super, not touching them all through the honey-flow. These are well drawn out, and filled and sealed, which came handy to make up colonies with, or for stores for the Winter.

After I am through dividing, I look the colonies all over and estimate the amount of honey in each hive, and if any are short, I feed them 3 to 5 pounds, and also in the Spring to start brood-rearing rapidly, keeping them evened up as fast as possible. By the time clover blooms, the hives are all boiling over with strong colonies, which can gather a large amount of honey in a short time.

Neosho, Wis., Jan. 16, 1892.

Poisoned Bees—Here is the Proof.

JOHN G. SMITH.

On page 49 I notice that Mr. C. P. Dadant brought my name into the discussion at the convention held at Albany, N. Y., on Dec. 8, 1891, in connection with the subject of spraying fruit trees while in bloom. It behooves me to make a statement in the matter.

In the report of the convention, it is stated that Prof. Lintner had doubts as to whether any bees were ever poisoned by gathering honey from fruit-bloom, which, at the time of gathering, was being sprayed by a solution of Paris green and water.

I want to say for the benefit of all who are doubting, that I am fully satisfied that my bees were poisoned by obtaining nectar from the apple bloom in the orchard of Mr. James R. Williams, who was at that time (April 25, 1888), with other employes, engaged in spraying his orchard with a solution of Paris green and water, in the proportion of one pound of Paris green to 50 gallons of water. At first, finding the solution so strong that it killed the foliage, he reduced it by using 100 gallons of water, but still the orchard in a very short time looked as if a fire had been through it.

This orchard consists of about 100 acres, and is situated about 1½ miles northeast of my apiary.

Now for the proof of my belief: It was on or about April 28, 1888, that I discovered an unusual amount of dead and dying bees in front of every hive containing bees. I also saw bees coming from the northeast, indicating that my bees were going to and from Mr. Williams' orchard. I immediately went to that orchard and found that the spraying business was going on. I could see bees continually going and coming in several directions from and to the orchard. I came home and found the destruction of my bees still going on, and as night came on the number of returning bees that fell at and near the hives seemed to increase, while some would enter the hive with their spoils of the day. At the same time, and all day long, there was a stream of young bees (that had never as yet been out to the field as gatherers) pouring out of each and every hive in the bee-yard, that hopped all over in front of the hives on the ground, and in a few minutes the bees would be dead. I picked up several bees and pressed them between the finger and thumb, and the exudation was unmistakably mixed with the solution of Paris green. I am a house-painter by trade, and know Paris green when I see it, whether in solution or dry.

Further proof: The next day (April 29) I went out on a tour of inspection, and was stopped on the road one-half mile west of my home, by Mr. Jacob Seibold, a bee-keeper having about 20 colonies of bees. He said: "Mr. Smith I want you to come and see my bees, and tell me what is the matter with them. They have been coming out of the hives and crawling all over the ground and dying by the bucketful."

"How long has this been going on?" I asked him. "Two or three days, and is getting worse every day," he replied.

I told Mr. Seibold that I had an idea what it was, but would not say until I had made further inquiries in the matter. I went on to New Canton, Ills., distant from the orchard in question about 3 miles, and found Mr. Kline's bees all right—nothing the matter, but they were working in an opposite direction. Also Mr. Lorenzo Gard, of New Canton, who had an apiary 200 colonies of bees, but they were all right. Also William H. Hyde, who lived a trifle southeast of Mr. Gard's, had about 200 colonies which were found to be all right.

Then I went south on a bee-line 2½ miles, to Mr. Benj. Newman's. He had 4 colonies, and before I got to his gate, he called to me, "You are just the man I want to see." (By the way, I am known nearly all over Pike County as "Bee John," from the fact of my having manipulated bees for nearly every bee-keeper in the county).

So it was that I was the very man that Mr. Newman wanted to see just then. Said he, "I want you to tell me what is the matter with my bees." I examined them, and found them in just the same condition as my own and Mr. Seibold's.

The next bees within the radius of 3 miles were located east from the orchard. The first east was owned by Mr. Chas. Dodge, one-half mile from the orchard. Again I was hailed before I could get to the house, with, "Look here, you are just the fellow I wanted to see. I want to know what is the matter with my bees." I found his bees affected as were the others—rolling and tumbling in front of their hives, and all around. Still, I would not give my conviction.

Next I visited the bees of Mr. Ed. Whittleton—2 colonies, 2¾ miles northeast of the orchard; also the bees of John Booth, G. B. Hall, Mr. Berbridge, Joseph Green and P. D. S. Green, all of Barry, Pike Co., Ills. All their bees were affected alike.

I want to further say that the Williams orchard was the first and only one being sprayed at the time mentioned, while the trees were in full bloom. I, for one, would like to see a satisfactory experiment, but not on so large a scale as was done on my bees and those of my neighbors. All the bees within the radius of 3 miles north, south, east and west, were affected, though the ones nearest suffered the worst. Of course, they did not all die outright, but were rendered unprofitable for the rest of the season.

New Canton, Ills., Jan. 15, 1892.

Bees Working in the Open Air.

H. B. FURBEE.

I noticed an item on page 70, about a swarm of bees found in Pennsylvania working in the open air, which had excited considerable curiosity.

In July, 1890, Mr. J. W. Crosby's son came to my house, and wanted me to take a hive and go to their farm (some

3 miles away) to hive a swarm of bees. He said he had found them in the timber hanging to a limb the Christmas before, and had not been back to look after them until that morning.

So the next day I put a hive in the wagon and drove down to Mr. Crosby's. When I got there, Mr. J. E. Jackson, an old bee-keeper, was there, and we all started for the timber. About half a mile from the house we came to the bees, which were about 20 feet from the ground, on an elm tree about 16 inches in diameter at the base. We cut the tree down so that the limb the bees were on would be up. It fell all right, and did not jar the bees or comb loose.

I cut the comb, and filled 5 frames with brood and honey, and had about 20 pounds of nice honey to take to the house. They had built their comb over 2 feet along under the limb, and it was about 14 inches wide in the widest place. The limb was about 6 inches in diameter, and the bees were about 5 feet from the body of the main tree.

I got the bees into the hive, and left the hive on some sticks about 4 inches from the ground. I told the boy that he must take them to the house that night, but he left them where they were, as he was afraid of the "busy end" of a bee. I saw the boy about two months later, and he said they had filled the hive, and had built the comb on below the frames, and had the hive and sticks all fastened together. I did not take any bottom-board with the hive, as I expected them to carry it home and place it on a board.

Now these are facts, as Mr. J. W. Crosby and Mr. J. E. Jackson will testify.

Tecumseh, Okla. Ter., Jan. 25, 1892.

Bees Sending Out Scouts before Locating

MRS. W. G. TITTSWORTH.

I just want to add my mite on bees finding a home before swarming. My husband made a squirrel box to hang up in a tree to entice the squirrels to live in the yard around the house. The box was made out of 2x8 inch plank, about 3 or 4 feet long, with an upper and lower story, and a 3-inch hole near the top, and another near the bottom. He put coarse sawdust in for a bed, and fastened the box up in a tree about 30 or 40 ft. from the ground. We put some squirrels into it, and they became great pets.

The box was over our path in going to and from the apiary, and one evening Mr. T. noticed the bees flying in and out of both holes of that box, and the squirrels had taken French leave. He called my attention to it, so we concluded there was a swarm of bees in the box.

We began to plan the best way to get them out, and save the swarm. Then we noticed they acted very queerly. We got a ladder and made an examination, and found there was no swarm, only bees trying to clean out that coarse sawdust, and they were black bees, while ours were yellow.

We had read about bees sending out scouts before swarming, so we watched for results. They cleaned away for 3 or 4 days, then it rained, and for about a week or so we saw no more bees around the box.

All at once we noticed bees there again, cleaning out sawdust—I should judge there was about 100 bees, and they cleaned away for about 3 or 4 days; so one morning our boy that was watching for swarms, gave the usual call, "Swarm! Swarm!" We rushed out, and found a swarm trying to settle on that box; and they did settle, and went in. They were black bees.

We took down the box and smoked them to get them out into a hive already prepared for them, and while we were at work a shower came up, and they all took wing and alighted on another hive that was already occupied with bees. The yellow bees did not leave a black bee to tell where they came from. They had a virgin queen, while the bees in the hive had a laying one.

We hung the box back again in the same place, but did not see a bee there again that Summer. We have a neighbor living about 2 miles from us that has bees, and he lost a swarm that day about the time mentioned, and they were coming in our direction the last he saw of them, and when the boy saw them first they were coming from the neighbor's direction.

Avoca, Iowa.

Top-Bars, Self-Spacing Frames, Etc.

G. P. MORTON.

When I got the Simplicity hive four years ago, with its wide frames to hold sections, and thin, narrow top-bars on the brood-frames, and wide spacing, the first thing I learned to do was not to like them. The next thing I did, was to take out these defects, and put improvements in their stead. The bee-space was ¾-inch between the brood-frames and surplus boxes. The bees would store nearly as much honey in this bee-space as they put into the sections.

The first thing I did was to knock out the wide hanging frames and closed-top sections. Then I closed the bee-space down to ⅜ inch, and I found the top-bars were sagging, and the bees still put in burr-combs. I decided that the spacing (½ inch) was too large between the top-bars of the brood-frames; so I made the frames wider, and made the spacing ⅜ inch—an improvement, but not complete.

I then decided to make the top-bars ½ inch thick, and 1 1/16 inches wide, and bring the spacing between the frames to 5/16 of an inch. I closed down the bee-space between the brood-frames and surplus boxes to from ¼ to 5/16 of an inch; cut the old 10-frame hive down to 14½ inches, outside measure; studied out, and put in a complete break-joint honey-board in the bottom of the section-case, turning the sections crosswise of the hive. The break-joint honey-board makes the section support.

Now I have a hive that I like, and I am succeeding with it; no more sagging of brood-frames, no burr-combs, and it is easily managed, and as simple as a pin. All we want in a top-bar is strength enough to support the weight. Further than that the depth of the top-bar has nothing to do with the burr-comb problem. It is in the spacing of the brood-frames, the space between the frames and surplus, combined with the break-joint principle, that does away with the burr-comb business.

But with all this done, we are not satisfied with present attainments. There was such an unrest and a cry for fixed frames, that last year I invented a self-spacing frame that is meeting with large demand, and receives praise wherever it goes. I cut the end-bars 1⅜ inches wide, and then scallop them out on the edge to within ½ inch of each end, using same top-bar as described above. When the frames are put to place, the end-bars touch at the top and bottom, and leaves a bee-space between the end-bars. This scallop allows the frames to come together without crushing the bees, and the top-bars of the brood-frames are spaced 5/16 of an inch apart.

I have used the plain frame for two years, and self-spacing frame one year, and have no change to make in them for the coming season.

Mr. A. I. Root has made an improvement in the Hoffman frame, by giving it a straight top-bar (my top-bar). I think that the self-spacing frames have come to stay, especially with the inexperienced and careless bee-keepers.

Vermont State Bee-Keepers' Convention.

H. W. SCOTT.

The 17th annual convention of the Vermont State Bee-Keepers' Association began at Middlebury, Vt., on Jan. 27, 1892, with about 30 representative bee-keepers present. The convention was called to order by President V. V. Blackmer, who opened the convention by a short but pointed address, congratulating the bee-keepers of Vermont on the successful season just passed, and on the enthusiasm which brought so many from various parts of the State.

The committee on nominations was H. L. Leonard, W. G. Larrabee, H. J. Manchester; and on resolutions, A. E. Manum, J. E. Crane and J. S. Clark.

The first discussion of the session, "New races of bees," was led by H. W. Scott, of Barre, and remarks were made by O. J. Lowry, of Jericho; J. E. Crane, of Middlebury; A. E. Manum, of Bristol; H. L. Leonard, of Brandon; R. H. Holmes, of Shoreham; W. G. Larrabee, of Larrabee's Point, and President V. V. Blackmer, of Orwell. The evidence brought forth seemed to be general that no new races of bees had been sufficiently tested to warrant a general purchase.

A report of the North American Bee-Keepers' Convention was given by W. G. Larrabee. Next was read a letter from J. H. Larrabee, of the Michigan Agricultural College, a former Secretary, congratulating the Association on the success of the past year.

At the morning session, Jan. 28, resolutions were adopted as follows:

Resolved, That we recognize with glad and grateful hearts the abundant flow of honey the past season, as coming direct from the hands of the Giver of all good things.

Resolved, That we rejoice together in the improved condition and outlook for the business of bee-keeping in Vermont.

Resolved, That we tender our thanks to the railroad companies, and to the proprietor of the Addison House, for favors granted the Association.

The first discussion was on the topic, "Overstocking in Vermont; can it be done?" This was followed by "Old or young bees for Winter." There was some talk on ventilation, and the majority thought it better to have an opening for moisture to escape, and it was thought perhaps more under ventilation would be better.

Last year, in May, there was a re-union at President Blackmer's, in Orwell, enjoyed by all present, about 25, and a cordial invitation was extended to all to enjoy another re-union at the same place next Spring.

At the evening session of Jan. 28, R. H. Holmes, the committee appointed at the last annual meeting to investigate as to a proposed exhibit of Vermont honey at the coming World's Fair, reported but little enthusiam, as the ruling requiring all articles to be in place the first of the season, would shut out the crop of 1893, thus only allowing the crop of 1892, which had been kept over Winter to its detriment. It was the idea of the meeting that it would be better to change the ruling so as to admit the crop of 1893, after Sept. 1, 1893, and a committee consisting of R. H. Holmes, J. E. Crane, and H. W. Scott was appointed to look up the matter. Those interested will please correspond with R. H. Holmes, chairman.

The Treasurer's report showed a small deficit, and the annual dues were raised to 50 cents.

The following officers for the ensuing year, were elected:

President—V. V. Blackmer, of Orwell.

Vice-Presidents—W. C. Larrabee, of Larrabee's Point, for Addison county; F. H. Walker, of Manchester, Bennington county; J. D. Goodrich, of East Hardwick, Caledonia county; H. H. Dodge, of Shelburne, Chittenden county; J. W. Smith, of Moscow, Lamoille county; M. F. Cram, of West Brookfield, Orange county; H. L. Leonard, of Brandon, Rutland county.

Secretary and Treasurer—H. W. Scott, of Barre.

A committee of the President and Secretary was appointed to procure members' badges.

An informal discussion of the case of the apiarists *vs.* commission men was then taken up, and many interesting facts were brought forth.

The next discussion, on stimulative feeding in the Spring to increase brood-rearing and get the bees ready for the honey harvest, was led by J. E. Crane. Nearly all who took part agreed that honey was far superior to sugar syrup to increase brood.

"How I sell extracted-honey," was the topic of W. G. Larrabee. He said it was hard to make the public believe that candied honey was unadulterated, although it is the very best proof of its purity.

The reports of the members showed an increase of about 50 per cent. in bees and over 75,000 pounds of honey from about 2,000 colonies, yet this would hardly cover half of the total State crop for 1891.

Throughout the convention there was much enthusiasm manifested, and the meetings were very interesting and instructive. H. W. Scott, *Sec*

Imbedding Wire by Electricity.

W. E. DAGES.

Place the wired frame over a smooth straight board, a trifle smaller than the frame, until the wire is 1/16 of an inch (or half the thickness of heavy foundation) above the board from end to end, then place the sheet of foundation on the wire; let a current of electricity pass through the wire, from ¼ to ⅛ second, when the foundation will drop to the board, and the wire will be imbedded as perfectly as though it grew there. The colder the foundation the better. The battery I use for imbedding wire is an ordinary plunge battery—one I made myself from refuse electric-light carbons. The battery complete cost me 10 cents, and a like amount was invested in the acids. The current is strong enough to heat a No. 30 wire, 6 feet long, to 200° or 250° Fahr. If I had much wiring to do, I could rig up a table where one man, after the frames were wired, could imbed from 5 to 10 frames per minute.

Morris, Ills.

A Striking illustration in last week's "Frank Leslie's Illustrated Weekly" shows just the condition of affairs on the grounds of the World's Columbian Exposition, at Chicago. This representation of the different buildings is alone worth the price of the paper. It also has handsome pictures of the proposed new Episcopal Cathedral in New York, and the obsequies of the late Duke of Clarence. Price, 10 cents. To be had of your newsdealer.

CONVENTION DIRECTORY.

Time and place of meeting.

1892.
Feb. 10, 11, 12 —Ohio State, at Cincinnati.
S. R. Morris, Sec., Bloomingburg, O.

Mar. 1.—Wabash Valley, at Vincennes, Ind.
Frank Vawter, Sec,, Vincennes, Ind.

Apr. 6, 7.—Texas State, at Greenville, Tex.
A. H. Jones, Sec., Golden, Tex.

May 5.—Susquehanna Co., at Brooklyn, Pa.
H. M. Seeley, Sec., Harford, Pa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Eugene Secor..Forest City, Iowa.
SECRETARY—W. Z. Hutchinson....Flint, Mich.

National Bee-Keepers' Union.

PRESIDENT—James Heddon ..Dowagiac, Mich.
SEC'Y AND MANAGER—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Bees are Wintering Nicely, so Far.

We had cold weather in the forepart of January, and warm in the latter part. February came in with rain. High water took out two bridges, here in the valley. Now it has turned cooler, and it is freezing again. The snow is almost all gone.
E. S. HUBBARD.
Oil City, Wis.

Bees in Fine Condition.

My bees have wintered finely, so far, without any loss. I have 18 colonies all in splendid condition. They were wintered in a shed 70 feet long, all boarded up on the north side, and 2 feet down on the south from the top to prevent rain from blowing in. The bees had a good flight every week this Winter. They are hatching young bees now, and have been for two weeks. They have the advantage of the sunshine, and have not used much of their stores yet; but the young bees will use it, as the combs are getting pretty well supplied with them. I am feeding some to stimulate brood-rearing as much as possible. They are well supplied with pollen. Some of my neighbors have lost half of their bees on account of neglect. They let the mice eat their honey. I do dislike to see so many start in bee-culture when they are afraid to open a hive, and cannot hive a swarm when they come off. I have just such in my neighborhood. I have tried to get them to subscribe for the AMERICAN BEE JOURNAL. They say, "Oh, I can't afford to take it." Such folks will never make a success of bee-keeping.
JAMES H. BERRY.
Gale's Creek, Oreg., Jan. 29, 1861.

Dry Weather—Winter Stores.

There are a good many bee-keepers in this part of the country. I have 20 colonies of bees, but they did not store much surplus honey last year. The dry weather began about the time the white clover was fairly in bloom, and it remained dry so long that the bees used all the honey they had gathered by the time the Fall flowers came on. I would like to ask this question: Will 6 frames, 18½x11¼ inches, winter a colony of bees if they are well filled with honey?
F. HARTLEY.
Blair, Ills., Feb. 2, 1892.

[The 6 frames of honey should be abundant Winter stores for a full colony of bees.—ED.]

Honey-Wagons Run in Cities.

I notice in the report of the late California State Bee-Keepers' Convention (page 156) that Mr. A. I. Root said they sold "honey in Denver in sections at 15, 20, 25 and 30 cents per pound, and sold many tons from wagons, which run as regular as milk wagons." Now, do I understand that this refers to Denver, Colo.? If so, he has been misinformed. I have lived in Denver, Colo., and vicinity for nearly ten years; and, previous to embarking in apiculture, I bought many pounds of honey, the highest price I ever paid for it being 40 cents per pound, and that was in 1883 and 1884; it was California comb-honey at that, and the price has gradually decreased since then. I know that the best comb-honey during that time has not retailed for a higher price than 20 cents per pound; it has been as low as 11 cents per pound, and some of it was as good as any in the market. As to wagons being run as regular as milk wagons for the sale of honey, I do not believe that there is one wagon run in that connection, in which honey is made a specialty. The only connection I can see in which honey is sold from wagons, is the same truck-farmers who keep a few bees, and others of the same class who do not keep bees, carry a few pounds of honey with them in their daily rounds in supplying their customers with vegetables, and at the same time supplying them with honey if they want it. I can buy the best grade at any retail store for 15 cents per pound, and there are quite a number of places where the same grade can be had for 12½ cents per pound.

WM. L. BACKENSTO.

Fort Logan, Colo.

Those Golden Queens.

We wish to correct an error in the editorial notice on page 142. Only 34 of the queens mentioned were from our apiary. We intended to say so in our letter, but possibly forgot it, as we had but 45 minutes in which to write the letter, hitch the team to the sled, and go 2½ miles to the postoffice before the mail would leave. It would be injustice to the party who furnished the rest of the queens (18) to leave the matter as it is.

S. F. & I. TREGO.

Swedona, Ills., Jan. 30, 1892.

Failed to Meet with Success.

I am an old man, having spent the prime of my life trying to cure the sick. Last year I retired to my farm in the Mississippi River bottom, believing it to be, as reported, a good honey-producing locality. I expected to find pleasure and profit in caring for a few colonies of bees. Having one colony of bees in a box hive, I transferred the bees and comb to two Langstroth hives, and bought a Carniolan queen for the queenless part. I also furnished new hives for two colonies of young bees. I followed instruction to the letter in transferring—did it while apple trees were in bloom, notwithstanding which the bees never fastened their combs well, nor added much to it, and stored but little honey. In November I made syrup and poured it into the empty combs for the colony having the Carniolan queen, and during the last week in January, the weather being mild, I examined them to see if they needed more food, and found them all dead. My other colonies, not fed, had all previously died. Now I have 8 Langstroth hives, some bee-literature, no bees, and no honey. I feel as if I had been fishing, and in place of fish had caught a good "wetting." My philosophy is to get the very best of everything I allow myself to handle, but I see so much conflicting testimony as to the best bees, that I am inclined to take sides with James Hamilton (page 85), and get my empty hives filled with common black bees, as they are cheap here, and, so far as I know to the contrary, are just as good as any. At any rate, before I spend much more money for stock in that line, I must see some return for my outlay.

A. MOSHER.

Pleasant Hill, Ills.

Frames Partly Filled with Honey.

I have about 400 frames, each containing from one-half to 4 pounds of honey. Could these be advantageously used to stimulate brood-rearing in the Spring, outside of the hives, without starting the bees to robbing? If so, how far must they be taken from the apiary? At what time should they be used? I have 80 colonies of bees.

J. E. WALKER.

Clarksville, Mo., Feb. 3, 1892.

[The partly-filled frames can be used to advantage in "building up" in the Spring, and to stimulate brood-rearing, but they should not be exposed, or robbing will ensue. It would be better to put one on each hive, lying down flat on top-bars of the frames; a bee-space may be left, if convenient to place small sticks between the frames of honey and the top-bars. By being turned over when cleaned out on one side, the honey will all be saved, and the work nicely done by the bees with but little trouble to you.—ED.]

No Bees Lost in Wintering.

I have 9 colonies of bees on the summer stands, just as they were all Summer. They have no protection, only the hive and board cover. I have not lost any yet in this kind of winter quarters, but I had to revive one on Feb. 2. It swarmed out on Feb. 1, and I looked at them on Feb. 2, and found them all apparently dead—starved. I took them into the house and spread them out on a board, sprinkling them with syrup, and in an hour I had them all alive and back into their hive with a good supply of stores. My wife was out picking up the dead bees that was at the entrances, and found the queen lying 3 or 4 feet from the hive. She had laid there all night, but she revived, and was as active as ever in a few minutes. I purchased one Italian queen, and introduced her all right, for my first experience. I have made a sawmill on a small scale near my house, to cut up lumber to make hives. I have a good location for the bee-business, which I intend to follow. In 15 days, bees in this locality will begin to gather pollen from the alder, which is here in abundance. WM. WEBB.

Sutton, Tenn., Feb. 3, 1892.

A Good Year for Bees.

The past was a good year for bees. My crop of honey was 1,800 pounds from 27 colonies, Spring count, 3 of which were queenless. I also increased to 40 colonies. The best yield from one colony was 160 pounds. My crop was all extracted, and was all very dark. I am well pleased with the AMERICAN BEE JOURNAL, and expect to take it as long as I keep bees, and can get a dollar to pay for it. JAMES A. KING.

Sub Rosa, Ark., Jan. 29, 1892.

Wavelets of News.

The Man Who Knows It All.

Dr. John Dzierzon reached his 81st year Jan. 16th, 1892. He is enjoying good health, is engaged in keeping bees to quite an extent, and is still one of the best if not the ablest writer on apicultural matters in his native country, Germany.

The 36th German-Austrian Bee-keepers' Association met in Luebeck, Germany, Sept. 25-28, 1891. The first one of these conventions was held in the '40's, if I am not greatly mistaken; and according to Dzierzon an invitation was also extended to the (at that time) distinguished bee-keeper Gundelach. His reply, however, to Dzierzon was that he thought he could not learn anything more in connection with bee-keeping, and therefore should not attend.

How selfish and foolish the conduct of this man appears in view of the present light of apiculture—in view of the wonderful discoveries, the many highly prized inventions!

But have we reached the climax? are we on the top-round of the apicultural ladder? By no means. Much may be known; but more is to be revealed in the future; and the man who "knows it all" (?) and does not try to keep himself posted by attending conventions or reading some of the best bee-periodicals exhibits as little wisdom as Gundelach 40 or 50 years ago, when he refused to meet with the best bee-keepers of his time, when bee-literature was hardly in its infancy.—F. GREINER *in Gleanings in Bee-Culture.*

Confined Bees Uneasy.

Several parties have written lately that their bees are uneasy in their winter quarters, that they are making "a loud humming noise," and seemed disturbed generally. Some of these parties have had their bees confined in the hives by closing the entrance with wire cloth, or otherwise. It is bad policy to confine bees to the hives. We have tried the plan in former times, but as soon as the bees found themselves imprisoned, they at once became disturbed, and remained so until they were given their liberty again. Everything loves freedom, and I do not blame bees for objecting to being sent to the penitentiary.

This Winter has been very warm so far, and the bees should have the entire entrance to their hives left open, and it would be better to have the hives raised ⅜ or ½ inch from the bottom-board, by having a small piece of lath under each corner of the hive.

Examination of our own cellar showed the temperature to be 48°; this was 6° or 8° higher than we like, at this time of the year, and so we immediately admitted more air and lowered the temperature to 40°. A colony that is restless will consume all the stores and starve before Spring, unless they have a large amount. Every cellar should have a good thermometer in it, to indicate the exact temperature at all times. —*Farm, Stock and Home.*

Raccoons as Bee Enemies.

'Coons esteem honey-bees a great delicacy. A 'coon will go to a hive, tap on the top to start the bees out, and as they swarm on the alighting-board will clap his paw on three or four of them, flatten them out and put them in his mouth, entirely disregarding their stings.—*Exchange.*

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

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20 cents per line of Space, each insertion.

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A line of this type will admit about eight words. ONE INCH will contain TWELVE lines.

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Advertisements intended for next week must reach this office by Saturday of this week.

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

☞ Send us *one new* subscription, with $1.00, and we will present you with a nice Pocket Dictionary.

☞ The date on the wrapper-label of this paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to pay for another year.

☞ Systematic work in the Apiary will pay. Use the Apiary Register. It costs:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

☞ As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.

YOU NEED an Apiary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for $1.25; or for 200 colonies for $1.50. *Order one now.*

Supply Dealers desiring to sell our book, "Bees and Honey," should write for terms.

We Club the American Bee Journal and the Illustrated Home Journal, one year for $1.35. Both of these and Gleanings in Bee Culture, for one year, for $2.15.

If You Have any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time.

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

When talking about Bees to your friend or neighbor, you will oblige us by commending the BEE JOURNAL to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the Convention Hand-Book, by mail, postpaid. It sells at 50 cents.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club*
The American Bee Journal	$1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	2 00	1 75
The Apiculturist	1 75	1 65
Canadian Bee Journal	1 75	1 65
American Bee-Keeper	1 50	1 40
The 7 above-named papers	6 00	5 00
and Langstroth Revised (Dadant)	2 40	2 25
Cook's Manual (1887 edition)	2 25	2 00
Quinby's New Bee-Keeping	2 50	2 25
Doolittle on Queen-Rearing	2 00	1 75
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 50	1 40
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 50	1 35
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
Toronto Globe (weekly)	2 00	1 70
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The Lever (Temperance)	2 00	1 75
Orange Judd Farmer	2 00	1 75
Farm, Field and Stockman	2 00	1 75
Prairie Farmer	2 00	1 75
Illustrated Home Journal	1 50	1 35
American Garden	2 50	2 00
Rural New Yorker	3 00	2 25
Nebraska Bee-Keeper	1 50	1 35

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

◆

If You Want to know how Queens are fertilized in upper stories, while an old Queen is laying below—how to *safely introduce* Queens at any time when bees can fly—all about different bees, shipping Queens, forming nuclei, multiplying or uniting colonies, etc.—send us $1.00 for "Doolittle's Queen-Rearing;" 170 pages; bound in cloth, and as interesting as a story.

◆

Winter Problem in bee-keeping; by G. R. Pierce, of Iowa, who has had 25 years' experience in bee-keeping, and for the past 5 years has devoted all his time and energies to the pursuit. Price, 50 cents. For sale at this office.

The Report of the Albany convention in pamphlet form is now completed, and has been sent to all the Annual, Life and Honorary members and ex-Presidents of the North American Bee-Keepers' Association—to the Agricultural Colleges and Experimental Stations of America, and all others entitled thereto. It will be mailed to any one desiring it, for 25 cents; 6 copies for one dollar. It contains half-tone pictures of the present and retiring officers, printed on enameled paper, words and music of a Bee-Keeper's Song, etc. We think that all will be highly pleased with it.

◆

A Nice Pocket Dictionary will be given as a premium for only **one new** subscriber to this JOURNAL, with $1.00. It is a splendid little Dictionary—just right for the pocket. Price, **25 cents.**

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

WANTED—Bee-keepers to send for my price and samples of Comb-Foundation.
JACOB WOLLERSHEIM, Kaukauna, Wis.
1Atf

FOR SALE—Twelve barrels of choice extra Early Seed Potatoes. Cheap. Address,
5A3t WM. H. FORD, Marshalltown, Iowa.

WANTED—A situation in an apiary or hive manufactory. I am willing to make myself generally useful.
J. W. TEFFT,
5Atf 318 Swan St., Buffalo, N. Y.

WANTED—To exchange Bees, Honey and Supplies for Cash or Tinners' Tools.
J. A. BUCKLEW, Warsaw, Coshocton Co., O.
5Atf

WANTED—Bee-keepers in Mo., Kans., Neb., Ark. & Tex. to write for Circular. Newest & best Hive out. Emerson Abbott, St. Joe, Mo.
6Atf

WANTED—A good hand to help with Bees and Honey, and work at farm work the balance of the time.
E. DRANE & SON,
7A2t EMINENCE, KENTUCKY.

WANTED—At once, a man to go to Lake Worth, Dade Co., Florida; one who is compentent to rear Queens and take full management of an Apiary. State age, experience, and salary expected per year.
HENRY STITES, M. D.,
7A1t 1500 Sixth St., Harrisburg, Pa.

HONEY AND BEESWAX MARKET.

CHICAGO, Feb. 6.—Fancy white comb is selling at 16c.; other grades 10@14c. Extracted slow demand, 6½@7½c. Beeswax, 26c.
S. T. FISH & CO., 189 S. Water St.

NEW YORK, Feb. 6.—Demand is limited, and supply sufficient. No demand for 2-℔ sections. We quote: Comb—Fancy white, 1-lb., 13@14c; off grades, 1-lb., 10@11c; buckwheat, 1-lb., 9@10c. Extracted—Basswood, 7c; California, 7@7½c; buckwheat, 5½@6; Southern, 65@70c ℘ gal. Beeswax, scarce and firm, at 26@28c.
HILDRETH BROS. & SEGELKEN,
28-30 West Broadway.

KANSAS CITY, MO., Feb. 6.—Demand slow, and market well supplied. White comb, 1lb. 14@15c; dark, 9@12c. Extracted — White, 7½c; dark, 5@6c. Beeswax, is in light supply, and demand good, at 23@26c.
CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI, Feb. 6.—Demand is good for family use, but very slow from manufacturers. Choice white comb, 14@16c. Extracted, 5@8c. Beeswax is in good supply and fair demand, at 23@25c for good to choice yellow.
C. F. MUTH & SON,
Cor. Freeman & Central Aves.

NEW YORK, Feb. 6.—Demand for honey is fair, with adequate supply. We quote: Fancy 1-℔., 14c; do 2-℔., 12c; fair, 10@12c; buckwheat, 9@10c. Extracted—Clover and basswood, 7@7¼c; buckwheat, 5¾@6c. Beeswax, in fair demand, with adequate supply, 26@27c.
CHAS. ISRAEL & BROS., 110 Hudson St.

KANSAS CITY, MO., Feb. 6.—Demand poor, with large supply of comb. We quote: Comb —1-lb. fancy, 15@16c; dark, 12@13c. Extracted—White, 7@7½c; dark, 5@6c. Beeswax —None in market; light demand.
HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, Feb. 6.—The demand for comb-honey is fair and supply moderate. We quote: Comb, 12@13c; extracted, 7@8c. Beeswax in good supply, and light demand, at 25@26c.
M. H. HUNT, Bell Branch, Mich.

CHICAGO, Feb. 6.—Demand good and supsufficient. We quote: Comb, 14@16c. Extracted, 6@7c. Beeswax, in light supply, and good demand, at 25@27c.
J. A. LAMON, 44-46 S. Water St.

MILWAUKEE, Feb. 6.—Demand fair and supply good, except of the best quality. We quote: Comb—choice, 1-lb., 15@16c; fair, 13@14c; dark, 10@12c. Extracted—white, in barrels or kegs, 7½@8c; dark, 6@6½c. Beeswax, 23@28c.
A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO, Feb. 5.—Demand good, supply small. We quote: Comb, 1-lb., 10@14c. Extracted, 5½@6½c. Beeswax, in light supply and good demand, at 23@25c.
SCHACHT, LEMCKE & STEINER,
16 Drumm Street.

MINNEAPOLIS, MINN., Feb. 6.—Demand is moderate, supply ample, and shipments coming in freely. We quote: White comb, 17@18 cts.; dark, 14@15c. Extracted, 10@10½c.
STEWART & ELLIOTT.

CHICAGO, Feb. 6.—Demand is now good supply is not heavy. We quote: Comb, best grades, 15@16c. Extracted, 6@8c. Beeswax, 26@27c. R. A. BURNETT, 161 S. Water St.

BOSTON, Feb. 6.—Demand is light, supply ample. We quote: 1-℔. fancy white comb, 14@15c; extracted, 6@7c. Beeswax, none in market.
BLAKE & RIPLEY, 57 Chatham St.

ALBANY, N. Y., Feb. 6.—Demand is slow, supply not liberal, as stock is mostly in. We quote: White comb, 12@15c; buckwheat and mixed, 8@12c. Extracted — Light, 7@7½c; dark, 6@6½c. Beeswax—Supply light, and demand steady, at 28@29c.
H. R. WRIGHT, 326-328 Broadway.

NEW YORK, Feb. 6.—Demand is light, and supply large, except buckwheat comb. We quote: Fancy white comb, 12@14c; buckwheat, 9@11c. Extracted—Clover and basswood in good demand at 6½@7c; buckwheat ind emand at 5@6c. Beeswax in fair demand at 26@28c.
F. I. SAGE & SON, 183 Reade St.

NEW YORK, Feb. 6. — Demand moderate, and supply reduced, with no more glassed 1-℔ nor paper cartons, 1-℔. We quote: Comb, 1-℔, 14@15c. Extracted—Basswood, 7¼@7½c; buckwheat, 5½@6¼; Mangrove, 68@75c per gal. Good demand for dark extracted honey. Beeswax, in fair supply, with small demand, at 26@27c.
F. G. STROHMEYER & CO., 122 Water St.

Supply Dealers should write to us for wholesale terms and cut for Hastings' Perfection Feeders.

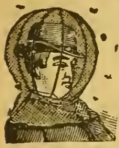
Calvert's No. 1 Phenol, mentioned in Cheshire's Pamphlet on pages 16 and 17, as a cure for foul-brood, can be procured at this office at 25 cents per ounce, by express.

Get a Binder, and always have your BEE JOURNALS ready for reference. We will mail you one for 50 cents.

Money in Cabbage and Celery.—"Blood will tell." Good crops cannot be grown with poor strains of seed.

For 16 years Tillinghast's Puget Sound Cabbage, Cauliflower and Celery Seeds have been gaining in popularity. The most extensive growers all over the Union now consider them the best in the world. A catalogue, giving full particulars regarding them, will be sent free to any one interested. When writing for it, enclose 20 cents in silver or postage stamps, and we will also send "HOW TO GROW CABBAGE AND CELERY," a book worth its weight in gold to any grower who has never read it. Address
ISAAC F. TILLINGHAST,
18A16t La Plume, Pa.

GLOBE BEE-VEIL



By Mail for $1.00.

A center rivet holds 5 spring-steel cross-bars like a globe to support the bobinet Veil. These button to a neat brass neck-band, holding it firmly. It is easily put together; no trouble to put on, or take off. An absolute protection against any insect that flies. Will go over any ordinary sized hat; can be worn in bed without discomfort; fits any head; does not obstruct the vision; folds compactly, and can be carried in the pocket; in short, it is invaluable to any one whom flies bother, mosquitos bite, or bees sting.

Extra Nets, 50 cents each.

CLUBBING OFFER.

We will send this Veil and the Bee Journal one year for **$1.75.** Or, we will give the Veil **Free** for three (3) **New** Subscribers to the Bee Journal, with $3.00 to pay for them.

Subscriptions to the Home Journal may be included in all Clubs, counting two (2) Home Journals as equal to one (1) Bee Journal.

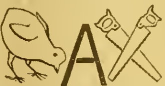
THOMAS G. NEWMAN & SON,
199, 201, 203 East Randolph St., CHICAGO, ILLS.

$300 CASH!

For Solving this Rebus.

It is the name of a Tribe of Indians.
ALL HAVE A CHANCE TO GUESS.

We will give $100 for the first correct answer received; $50 for second; $25 for the third; $10 each for the next five; and $5 each for the next fifteen.



Each Reply, to be eligible to competition, must be accompanied by 50 cents for a year's subscription, or 30 cents for 6 months, to the

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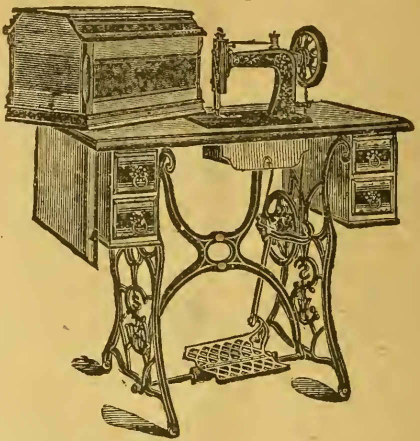

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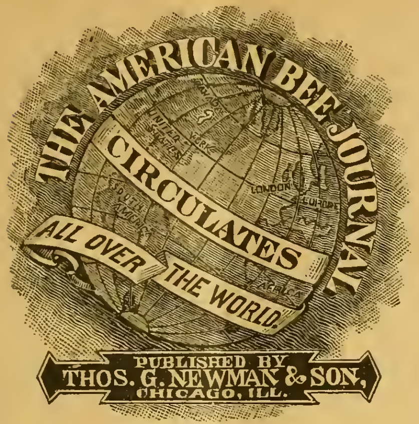

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THOMAS G. NEWMAN,
EDITOR.

Vol. XXIX. Feb. 18, 1892. No. 8.

Editorial Buzzings.

A Bee's Small Sting is a red-hot thing,
And "gets there" without fail;
It points a moral in language oral,
And besides adorns a tail.

◆

Missouri has a small city by the name of Miami, located in Saline county, which contains a lot of *small* souls, who are worried about the harm they say bees do to fruit, They have signed the following petition and sent it to the City Council:

To the Honorable Mayor and Council of the City of Miami:

We, the undersigned, tax-paying citizens of Miami, having been greatly annoyed, during the past two years, by the bees, located within the limits of the city of Miami, visiting our premises, injuring or destroying our fruits; by the said bees stinging and frightening members of our family; respectfully ask that our honorable body take such action, and use such measures as will afford us relief from the said nuisance, assuring you of our hearty support in any steps you may take in accomplishing the abatement of the nuisance.

By the Miami *News* of Feb. 6, we notice that the petition was presented at the meeting of the City Council on Feb. 2, 1892. An Ordinance was also presented, and rushed through at the same meeting, prohibiting the keeping of bees within the corporated limits.

Now, we shall see what more the city alderman will **DO** to make themselves the laughing-stock of the world.

◆

If there is One Thing more than another that should be universally condemned, it is a *fraud*—no matter how practiced, nor by whom it is advocated. Dr. Miller, in *Gleanings* for Feb. 1, makes a good point as follows:

Feeding sugar to produce honey, in the shape of the Wiley lie, has kept us fighting for years; and now comes a correspondent of the *Review*, and gravely raises the question whether, in bad seasons, we may not have good comb-honey made, by feeding sugar, in the right way, and at the right distance.

The Wiley affair was an attempt at murder; the present effort coming from one of our best men, in one of our best periodicals, is an attempt at suicide.

Anything that weakens the pillars of truth, justice, morality and honor, which support human integrity, should be regarded with excessive repugnance and disgust. Even the deliberate contemplation of dishonestly obtaining honey in the comb, by deceiving the bees and making them a party to the fraud, is in itself a *crime!*

We doubt if anything has ever been seriously suggested which has been quite so despicable as that. To put it into practice would be to kill the industry, and hold its advocates up to view as a set of base swindlers.

No. No. It would be preferable to die *poor*, even in an alms-house, than to be rich with such a stain on the soul!

Abhor the thought! Condemn the suggestion! Curse the practice!

Rambler has been writing up his travels from New York to California, where he has now located permanently. While in Chicago, last July, he was "on the sick list" for some days, and upon recovering, he took in many sights, including a view from the Auditorium tower. In *Gleanings*, he writes thus :

> After leaving the Auditorium I went directly to the office of the AMERICAN BEE JOURNAL. Upon entering this famous establishment I found confusion in every department. I did not know at first but too much Chicago gas here had caused an explosion ; but I soon found the true cause. Our friends were having a moving agony, and were going to larger and more commodious quarters.
>
> Mr. Newman is a genteel-appearing man of medium height and breadth, and would be readily recognized by any one who has seen his photo in the journals. The son, Alfred, is a chip from the old block, as far as appearance is concerned; and beneath the exterior I have reason to know there beats a kindly and fraternal heart.
>
> My first acquaintance with the AMERICAN BEE JOURNAL dates back to about the fourth volume, or when edited by its founder, Samuel Wagner, and only a short time previous to his death. The old numbers of those early volumes are carefully preserved. The editorials have a scientific cast, showing that the founder had a love for research, and a power to impart the same spirit to others. The Rambler's first essay in the interests of bee-culture will be found in these early volumes, over the name of "Scientific," with not much scientific about them either.
>
> After the death of Mr. Wagner I lost my interest in the JOURNAL until it was revived by the present editor, since which time I have been regularly its patron.
>
> The enterprise of the present editor needs no further comment than to refer to the fact that he was the first to give the fraternity a weekly paper.
>
> I do not know whether the editor ever becomes discouraged or not; but between the grippe and the low price at which the paper is published, it would be no more than human if he did.
>
> Let us see—occupying the position it does in the apicultural ranks, and the legal status it has given to bee-keeping through the Bee-Keepers' Union, its circulation should be great. It costs the reader less than 2 cents per week. Now, whatever circulation the JOURNAL may have, I feel that an addition of 10,000 more would give it such a boom that, though valuable now, it would be enabled to become doubly so. That such a state of things may be accomplished is the wish of the RAMBLER.

The editor adds : "*Gleanings* desires to second your wish in regard to the old AMERICAN BEE JOURNAL."

Both "Rambler" (which is none other than our friend John H. Martin) and Ernest have our thanks for kind words.

Oh, yes ! Editors do sometimes get discouraged. It is up-hill work, and especially hard when nearly all the "pushing" has to be done by the editor.

The "grippe" does not help in the slightest—but it does destroy energies, and cause many heart aches.

What a *reviving influence* that additional ten thousand subscribers would have ! Oh, yes ! send them along.

La Grippe is yet heavily oppressing apiarists as well as others. In *Gleanings* for Feb. 1 we notice the following :

> If you discover any lack of editorial sifting in this issue, please lay it to that old fiend *La Grippe*. It did not get hold of us this time, but it laid low the Business Manager, J. T. Calvert ; and the consequence was, we were obliged to take up his work for a week, and part of the time work nights on *Gleanings*.
>
> Mr. Calvert is now back at his post as usual, but little if any worse for his siege of *grippe*, and things are going on as usual again.
>
> We presume Brother Newman, of the AMERICAN BEE JOURNAL, knows how to appreciate the position we were in a few days ago.

Yes ; we do not only know how to appreciate your position, Ernest, but we can sympathize with you. In December, just as we were getting the better of *La Grippe*, our Business Manager, Alfred, was taken down with it, and we had to assume the labor of both. Now a clerk in the business department is down with it. Oh, yes ; we can appreciate the situation most fully.

Illinois Bee-Keepers are particularly interested in the following circular issued by the efficient Secretary of the Illinois State Bee-Keepers' Association:

To Bee-Keepers of Illinois :

You are especially interested in the completeness and character of the information to be published in the First Annual Report of the Illinois State Bee-Keepers' Association, now in course of preparation.

It is important that the bee-keepers residing in all portions of the State, furnish information concerning this industry that will be of value and interest to the readers of the report, which will contain papers by prominent authorities on various subjects relating to the apiary.

Your are respectfully requested at your earliest convenience, to send answers to the questions following. Please send replies on foolscap paper, written on one side, and write your name and post-office address so plainly that no mistake can be made, and be kind enough to give the number of the question at the beginning of each answer.

You are also respectfully requested to send the names and addresses of all the bee-keepers in your county to the undersigned. JAS. A. STONE, *Sec.*
Bradfordton, Ills., Jan. 30, 1892.

1. How many years have you kept bees?
2. Do you make bee-keeping a specialty? If not, what else do you follow?
3. How many colonies, on an average, have you kept each year?
4. Do you use *box* or *movable-frame* hives?
5. If you use the latter, what are the dimensions of the frame, and how many to the hive?
6. Do you work your bees for *comb* or *extracted* honey.
7. If for both, please give the proportion of each.
8. In working for comb-honey, what sized sections do you use?
9. Do you use either wood or metal separators; and if so, which do you prefer?
10. What are your chief resources for honey?
11. How many pounds of comb-honey have you produced from each colony, on an average, Spring count, each year, during your experience in bee-keeping?
12. Ditto of extracted honey?
13. Do you sell your honey at home or in foreign markets?
14. What has been the average increase of the colonies run for comb-honey?
15. Ditto of the colonies run for extracted-honey?
16. What has been the average price you have received for comb-honey?
17. Ditto for extracted-honey?
18. Will bees store honey in sections with separators as readily as without?
19. Have you had any experience with Alsike clover, alfalfa, or any other plants specially cultivated, and do you consider them good honey plants?
20. Do bees in your locality work to any extent on red clover?
21. If so, what conditions are most favorable for getting honey from that plant in paying quantities?
22. What strain or strains of bees have you, and which is your preference?
23. Please give reason for preference.
24. Do you winter your bees in the cellar, or upon the summer stands?
25. In either instance, what per cent. of loss do you sustain?
26. In your locality what do you consider the proper time, on an average, for putting bees in the cellar?
27. Ditto for taking them out?
28. Do you know of any foul-brood in your locality?
29. Have you ever suffered any loss from the poisonous spraying of fruit trees?
30. If so, what time was the spraying done?
31. In your home apiary, to get the greatest profit, averaging one year with another, what is the greatest number of colonies you think it advisable to keep?
32. How can exhibits of honey and apiarian appliances at County and State fairs be managed to advance the interests of bee-keeping?
33. Miscellaneous remarks.

[Under this head you are kindly requested to make such suggestions as will tend to increase the interest in bee-keeping, and promote the industry in Illinois.]

The answers to the foregoing questions are important, in order to give the industry its proper status and influence, and we hope that each Illinois reader will sit down as soon as this is read, and answer each question by number as requested, and send to Secretary Stone, who intends to get out a very creditable report. It is published by the State, and will have an immense circulation.

◆

This Compliment is from the Wisconsin *Farmer*, and was written by Dr. J. W. Vance, who so ably conducts the apiarian department:

> That popular bee-periodical (the American Bee Journal) has just entered upon its 32d year. The last 18 years it has been under the able management of Thomas G. Newman. Doubtless it will continue to be the leading periodical in the United States devoted to bee-culture. All who are engaged in bee-keeping ought to take the American Bee Journal.

Under the heading of "Artificial Honey," Dr. Vance remarks thus when referring to our editorial on page 37:

> We are impressed, as well as amused, at the redoubtable manner with which the editor of the American Bee Journal meets this *immortal falsehood*, that appears from year to year in one form or another. The valiant editor is always equal to the occasion. He has pretty effectually disposed of the "Wiley lie," it seems to us, for we have not heard of it for a long time; but it will be sure to come out again; just wait awhile.

◆

Our Patrons who want that reliable weekly agricultural periodical, the *Prairie Farmer* of this city, can get it and the American Bee Journal from this office for only $1.75. Both of these periodicals and the Premium Map mentioned on page 266, for $2.50. In its 52d year the *Prairie Farmer* is full of life and vigor, and its ripe experience and high prominence in the domain of agriculture, and its kindred industries, make it a welcome visitor among the intelligent and well-to-do people of the central States.

◆

Dr. C. C. Miller gave us a call on his way to the Cincinnati Convention. He has recovered from the effects of *La Grippe*, and is again in full vigor.

Worms frighten many beginners. We have just received the following on a postal card:

> Please tell us something that will destroy and prevent worms from preying upon bees. Any information from you on the subject will be appreciated.—A. R. Latham, Castleberry, Ala.

If Mr. Latham means that moth-worms are destroying the combs, then he is "behind the times," and should get some Italian bees—they will make short work of moth-worms.

But perhaps uncapped brood is mistaken for "worms destroying the bees." We have heard of such cases. But time will dispel that idea if it exists.

◆

☞ A "Bee-Keepers' Supply Company" is again advertising as hailing from Chicago, but it has nothing for sale at the place named. A person takes letters delivered by the carriers, and forwards them to another State. Is it not fraudulent to advertise a place of business where there is none? Ours is the only "bee-supply" store in Chicago, and this "company" is evidently trying, through the influence of our business, to build itself up on our reputation and advertising. When sending orders to us, be sure to address 199 Randolph Street.

◆

The Department of Agriculture has now in press Farmers' Bulletin No. 5, which treats in a brief and practical manner of smut, in oats and wheat especially, and of the means which should be adopted by farmers in preparing the seed, so as to avoid injury to the crop from this cause. In order to avail themselves of the suggestions therein contained, farmers should receive this bulletin without delay, and special urgency will be used to get it out promptly. In the meantime applicants should send in their names and addresses, and the bulletin will be mailed to them immediately on its issue.

The Bee and the Dove.

"Oh, say, busy bee,
  Whither now are you going,
To work or to play ?"
  "I'm bound to the garden,
  Where roses are blowing,
For I must be getting
  Sweet honey to-day."

"Oh, say, pretty dove,
  Whither now are you flying ?
Whither now are you flying,
  To London or Rome ?"
"I'm bound to the nest,
  Where my partner is sighing
And waiting for me
  In my snug litte home."

So we all so happy,
  While daily advancing
In wisdom and knowledge,
  In virtue and love,
Will sing on our way,
  In our progress rejoicing,
As brisk as the bee,
    And as true as the dove.

—Selected.

Queries and Replies.

Comb-Foundation in the Sections.

Query 806.—1. Does it pay to use full sheets of foundation in sections? 2. How do you fasten full sheets in sections? 3. How near the bottom and sides of sections should the foundation come?—Penn.

1. I think so. 2. The quickest and cheapest is to use glue. 3. Just so as not to touch.—A. J. Cook.

1. I think so. 2. By melting the edge of the foundation with a hot iron. 3. One-eighth inch.—R. L. Taylor.

1. I practice it. 2. By a machine, or with melted wax and a brush. 3. One-fourth to ½ inch.—Eugene Secor.

1. No. 2. I do not use full sheets. 3. Within ¼ of an inch of the bottom. It should touch the sides.—Mrs. L. Harrison.

1. Yes. 2. By dipping it in a pan of melted wax. 3. It should clear the sides, and within 1 inch of the bottom.—J. P. H. Brown.

1. Yes. 2. With a foundation fastener. 3. Close to the sides, and I like to have a narrow strip fastened to the upper side of the bottom of the sections.—A. B. Mason.

1. Yes, it does with myself. 2. With a little pressing machine made for the purpose. 3. About ⅜ inch; perhaps ½ inch would be just as well.—J. E. Pond.

1. I think so. 2. By a mechanical device of my own. 3. My device fills the section, attaching it to the top and bottom.—J. M. Hambaugh.

1. Yes, if you allow the bees to build comb below. 2. I use melted wax. 3. Within 1/16 of an inch of the sides; ⅜ of an inch of the bottom.—G. M. Doolittle.

1. Yes. 2. I prefer the Parker foundation fastener, because of the back-sliding motion. 3. About ⅛ of an inch from the sides, and ⅜ from the bottom.—James Heddon.

1. Yes, nearly full. 2. With a machine, using a hot iron. 3. With thin foundation as near the side as possible, and about ¾ of an inch from the bottom.—H. D. Cutting.

1. I think it pays. 2. With the Clark foundation fastener. 3. I fasten a small starter at the bottom, and have the starter as close to the side as it can be conveniently put in.—C. C. Miller.

1. I think it pays to use nearly full sheets. 2. By pressing while warm to the top. 3. Let it come close to the sides, and down to within ¼ of an inch of the bottom.—E. France.

1. Yes, if the bees have not commenced to secrete wax. 2. With a foundation fastener. 3. To within ¼ inch of the bottom, and against the sides.—Mrs. J. N. Heater.

1. Yes, sir, in this locality. 2. By means of a heated plate, of home construction. 3. As near the sides as possible, and have it swing clear, and a good quarter inch from the bottom.—P. H. Elwood.

1. Yes. 2. By rubbing down about ⅛ inch of the foundation to the top of the section with a Clark foundation fastener. 3. One-half inch from the bottom, and ⅛ inch from the sides of the section.—S. I. Freeborn.

1. I doubt it. At first I used full sheets; now I use starters only. 2. By dipping the edge of the foundation in melted rosin and beeswax. 3. The sides may touch; at the bottom, the distance should be ½ of an inch.—M. Mahin.

1. If there is anything I feel positive about in bee-keeping, it is that it pays to use full sheets of foundation in sections.

2. With a Gray foundation fastener. 3. One-fourth inch from the bottom, and ⅛ inch from each side.—J. A. Green.

1. Perhaps it does, if you are just sure that you will get the sections filled. If you do not, it will not pay. 3. I still use melted wax, and a little camel's-hair brush, and I like it the best.—G. L. Tinker.

1. Yes, all the time that a honey harvest is "in sight." 3. I now use foundation coming to ¼ inch from the bottom, and ⅛ inch from the sides. Such sections will be filled full without a bee-space at the bottom.—C. H. Dibbern.

1. I have doubted it for several years, and my experiments in "feeding back," last Summer, have increased my doubts. I do not think it pays in quantity of honey, and certainly not in *eating* quality. 2. I use a little machine that can be guaged so as to "bite" the starters fast to the sections in the right position. 3. When using whole sheets I adjust them in the sections, so as to give a full ⅛ of an inch at each side, and ¼ of an inch at the bottom. Using Dadant's extra thin foundation, in a lot of 1,000 sections last year, not a dozen of them were badly bulged.—G. W. Demaree.

1. Yes. 2. I have not produced any comb-honey in sections for nearly ten years, to amount to much, but when I used to produce it, I put the foundation in the small groove then made in the top of the sections, and I liked it. I saw my boys last year, as they produce some honey in sections, dipping the sheets in melted beeswax quickly, and sticking them to the sections. I saw they did it very fast and nice, and none ever came off. I do not know where they got it. 3. In this warm climate I used to notice that when I filled my sections with foundation to the wood all around, I occasionally had one to bulge. I prefer the foundation to lack ¼ to ⅜ of an inch of touching anywhere except the top.—Mrs. Jennie Atchley.

1. It certainly does pay to use full sheets of foundation in sections. The proof is overwhelming. 2. Use a foundation fastener; or, if you have none, melted wax. 3. The space at the bottom should be at least a bee-space—perhaps ½ an inch would be better.—The Editor.

Does a man keep his word when no one else will take it?

Topics of Interest.

Cost of the Production of Comb-Honey.

G. M. DOOLITTLE.

On page 146 of the American Bee Journal, I see that Mr. R. L. Taylor has an article about the cost of comb-honey, and says, "it would be interesting to know how Doolittle arrived at his conclusions, that if capital and labor get their due reward, the cost of comb-honey is 13 cents per pound."

I am always willing to talk about that which will "interest" any one, but before doing so I wish to state that Mr. Taylor *never has, and never can*, produce honey at the price he names. Let him publish his expenses, etc., and say whether he has a farm, a law office, a hold on the "public crib" of his State, or something else to support his family, and then we can come nearer the truth regarding the matter, than we can by the conclusions which he jumps at, as given in his address.

In support of the above assertion, and also to give Mr. Taylor and others that which he says "would be interesting to know," allow me to quote something which I find on page 757 of the American Bee Journal for 1887, under the title of "Honey production, its first cost, and how much the bee-keeper should obtain for his labor," the same being a short essay read before the North American Bee-Keepers' Association of that year:

"Many seem to suppose that an apiarist is entitled to no more pay than the man who cuts wood, carries the hod, or breaks stone on the highway; men whose working value is about $1.25 per day.

"If this be true, whence is the bee-keeper to receive compensation for sleepless nights passed in forming plans to be carried out in the apiary during days of toil in the hot sun, only perhaps to find failure at the end, and the whole ground to be gone over again? Many have spent more hours, days, weeks and years studying bee-keeping than the most noted lawyer or physician ever spent over their calling; and yet there are some so insane as to think the bee-keeper can afford to work for the same wages as the hod carrier; one who has probably never spent an hour's thought upon his profession." (I see Mr. Taylor, in his address, only allows the bee-keeper

$1.07 per day, 18 cents less than the average hod carrier receives.) "The dealer who pays 8 cents per pound for our extracted-honey, tells us that he cannot afford to sell it for less than 10 cents per pound, which gives him a profit of 25 per cent.; yet the bee-keeper must furnish brains, interest on capital invested, rent of land and buildings, pay taxes on bees, pay for transporting his honey to market, perform one year's hard physical labor—all this for four-fifths of the selling price. There is a wrong somewhere, and the sooner we realize it the better.

"After carefully looking over the ground, I believe that 45 pounds of comb-honey per colony is, as a rule, an average crop. Allowing that a man can manage 100 colonies of bees, he will get 4,500 pounds of comb-honey as the result of a year's labor. But this is not clear gain, there is interest on bees, $36; taxes, $4; sections, $25; foundation, $30; shipping crates, $40; double interest on $200 invested in hives, $24, which would be necessary to keep them in repair, crating honey to the railroad, $11—all of which makes a cash outlay each year of $200.

"Now, suppose we meekly take the wages of a hod-carrier, $1.25 per day, or $391.25 for the 313 working days of the year; to this add the cash outlay of $200, and we have $591.25 as the actual cost of 4,500 pounds of comb-honey; a trifle over 13 cents per pound. Whoever sells his honey for less than these figures, works for less than $1.25 per day.—G. M. DOOLITTLE."

Right under this essay it reads: "The discussion of the subject was as follows: R. L. Taylor—In the cost of honey there are many points to be considered, and Mr. Doolittle has not mentioned all of them; for instance, the losses in Winter and from disease. I think the prices given are too low."

All of the others who discussed the subject, except Mr. F. Wilcox, thought the same as did Mr. Taylor, that I put the price too low, which proves that the assertion which I made in the start is fully endorsed by Mr. Taylor himself, or was only four years ago.

Let him put the price of labor up to where it belongs, and he will never again put a showing of only 5 cents per pound as the cost of comb-honey. Does Mr. T., as a lawyer, work at his trade at only $1.07 a day? When he went to the Legislature, what an insult he would have considered it, if the State had called him worth only $1.07 a day in that capacity. Mr. T. is worth as much as a *bee-keeper*, as he is in any other calling in life, and when he gave those figures of $45 for "one man six weeks during the honey harvest" as the worth of an apiarist, it was an open insult to every bee-keeper in the land.

It is reported that William Astor's income is $23,593 daily; $983 hourly, or $16.38 for each minute; but according to Mr. Taylor, Capt. Hetherington, P. H. Elwood, Dr. Miller, James Heddon, and a host of others equally intelligent apiarists should consider themselves lucky if they could receive the same amount for 15 days hard work that Mr. Astor receives each minute. Shame on such reasoning.

If I can so apply myself that I can succeed in accomplishing the same results in 42 days that I formerly accomplished in 313 days, I am entitled to the same pay for the former that I previously received for the latter, and if Mr. T. can do all the necessary work in an apiary of 150 colonies, producing 10,500 pounds of comb-honey in the time he has allowed to do it in, 42 days, he is capable of commanding wages just in proportion to what he does, and he knows *he* would be *mad* were I to try to hire him to do that work for $45.

Let us stop trying to belittle our pursuit in this way. Rather let us arise to the stature of God's freemen, and command the wages and respect which one of the most delightful pursuits under Heaven permits us to enjoy.

Borodino, N. Y.

The Black or German Bees.

JOHN H. BLANKEN.

I must give Mr. Ellingwood much credit for his article regarding black or German bees, on page 192. All bee-keepers know that the black race of bees is a very valuable one, as they are tough, and can stand the cold weather better than any other race; need no double-walled hives, or cellar wintering; will gather more surplus honey, are busier, and are not as cross as the other races.

Some bee-keepers think that black bees are more troubled with moths than other races, but this is not true. Keep the colonies strong, give them the same care as others, and there will be no trouble. We all know that more than two-thirds of the bee-keepers of America have black bees, and extensive bee-keepers at that, for they know the blacks are the best and healthiest in the world.

But how about queen-breeders? If you are dealing in live stock, you must have better looking bees. You will get a better price for nice yellow queens. As a general thing, black queens are not wanted at any price. The question is, Are you a queen-breeder or a honey-producer, or do you keep bees for pleasure or for profit?

If any one should doubt my words, just notice your black bees in cold weather. They will be out working before others, and in Spring you will notice that they bring in the first pollen, also start in surplus earlier.

Of course all bees will sting, but if you give the blacks a little more smoke when opening the hive, they will not fly up so much as some people think. I have often had a single bee following me for hours, and you may be sure that it was either a hybrid or a cross Italian. As a general thing black bees will not do that. Always handle them easy, and give them a good smoking. I have had many years' experience, and can prove the blacks are far ahead of all others.

Jersey City, N. J.

[The black bees are neither as hardy, docile nor industrious as the Italians. This is incontrovertible.—Ed.]

Sour Pollen and Bee-Diarrhea.

G. R. PIERCE.

On page 191 is an article from the pen of that veteran bee-keeper, Chas. F. Muth, entitled, "Winter Protection for Bees," which, though in the main correct, contains one statement that I think is entirely at variance with the facts.

He says in the fourth paragraph of his article, "Why should bees not get diarrhea if we permit their honey or pollen to get sour in their combs? *Who ever saw diarrhea without moldy combs?*" (Italics are mine). "Keep their food in a healthy condition, then no diarrhea need be feared."

There is no doubt that bees enjoy a greater degree of health when in possession of food—honey and pollen—that is entirely free from fermenting agencies. There is no doubt that, while a colony may endure exposure for a long time to a cold atmosphere heavily charged with moisture, a dry, warm atmosphere is more conducive to healthy bee-life; but this does not signify that we are to rush to the extreme of the argument and declare that all disease in the apiary results from the presence of excessive moisture. If we *always* found diarrhea where we found mold, the argument might be legitimate, but such is not the fact; bee-keepers often take out their colonies in the Spring, none of which are afflicted with diarrhea, and yet every hive has more or less moldy combs.

On the other hand, I have often examined hives in which every comb was clean, bright and dry, and the bees apparently in perfect health; and yet in 48 hours afterward the same colony would be badly diseased.

Then, again, I have noticed colonies when the disease was apparently in its incipient state; when, though afflicted, the bees were able, from the state of the weather, to eject their excrement *outside the hive;* in all such instances neither the honey nor the pollen shows signs of being sour.

When the excrementitious matter is deposited upon the comb, and comes in contact with cells containing bee-stores, then fermentation immediately sets in, for these bee-stores are composed of substances that are especially susceptible to the forces of decomposition, and it requires but a short time comparatively to produce the state of affairs that Mr. Muth describes. The souring of the pollen is therefore the result *following* diarrhea, and not the producing cause of the disease, as Mr. Muth seems to imply by his question, "Who ever saw diarrhea without moldy combs?"

In the same article, second paragraph, occurs also the following sentences: "We need no cellars, nor double-walled, nor chaff hives. Single-walled of 1 inch or ⅞ boards are all that is necessary." These conditions may be all that are required in Mr. Muth's vicinity, and I may say that in Iowa, during the last four winters, colonies prepared in the manner described in "Winter Protection for Bees," would do fairly well; but if this method of protecting bees were usually adopted in the Northwest, one Winter like 1884-85 would sweep bee-keeping as an industry out of existence in Northern Iowa, Minnesota and Wis.

If we had a mortgage on the Winter season, we could protect our bees according to the weather; but as it is, we must every season *prepare for the worst.* The beginner in bee-keeping must, therefore, weigh well the one phrase in Mr. Muth's article, *i. e.*, "in our latitude," before he decides to follow his method of wintering; for, if he lives in the Upper

Mississippi Valley, an exceptionally severe season will convince him that for this region the aforesaid method cannot be considered reliable. I have no doubt, however, that with Mr. Muth the plan he describes is successful.

Blairstown, Iowa.

Standard for Italian Bees.

THOS. JOHNSON.

I have read Mr. Doolittle's statement on page 47, saying that he is satisfied that the Italian bee is a hybrid, etc. I wish to cite him other animals besides the winged kind.

First, the Hereford cattle originated in England, and as a general rule they are red, with white faces. I have seen some of them with white spots on their sides, and some of them are dark red, light red, some with white-lined backs, and some not, but all registered animals and thoroughbreds.

Second, take the Shorthorns (Durham) cattle—all registered animals, some dark red, some light red, some roans, others white, varying from different families. Now, according to Mr. Doolittle's argument, the above animals are all hybrids.

I might go further in describing the animal kingdom, to show the weakness of Mr. Doolittle's statements, but I am satisfied this is far enough to convince any reasonable mind that we can establish a uniformity for Italian bees in America, and yet do no queen-breeder injustice. Furthermore, establish and deep a register of all queens bred to a certain standard. Any apiarian association can do it—county, State or national—all they have to do is to say what should be necessary for an apiarist to do, and what standard his queen should test, so that she should be eligible to record.

It is true that we have no way to distinguish from what family the male crop is from, but let her be fertilized with a black or hybrid drone, just as soon as her daughters begin to hatch, and we would see quite a difference, in the color, from their "aunties."

The way to establish uniformity in Italians would be in their color, and if any other bee-man has a better theory, let him publish it.

Is it possible that Mr. Doolittle has been all these years selling hybrid queens to his customers, and still they have been thinking that they were buying the best bred Italians of America, and buying from one of the best breeders of queens in New York State?

I have now got my bees, by carefully breeding the Italians, so that I have no use for veils only for visitors; but, by the way, if I had any of Doolittle's hybrids in my apiary, I believe I should have to get more bee-veils.

Establishing a system of grading Italian bees is a question of importance to bee-men, and the sooner it is settled by some national bee-association the better. I would like to hear from other apiarists of America on this subject.

Coon Rapids, Iowa.

Colorado State Convention.

H. KNIGHT.

The Colorado State Bee-Keepers' Association met at Denver on Jan. 18, 1892, at 10 a.m. After some routine business, it adjourned at 11 o'clock to attend the Real Estate Exchange, by invitation, to hear the address on beet sugar.

AFTERNOON SESSION.

The reports of the Secretary and Treasurer were read and approved.

The increase of membership fees was discussed. Action deferred.

Thirty members renewed membership.

Reports of Vice-Presidents of the different counties were favorably received.

F. O. Blair, of Trinidad, Vice-President at large, said: "There is no foul-brood in Las Animas county; bees have done fairly well, but the weather was too dry."

V. Devinney, of Jefferson county, said that "considerable damage had been done by foul-brood; the average crop was 25 pounds of comb-honey per colony."

Chas. Adams, of Weld county, reports the organization of a bee-keepers' association at Greeley.

R. C. Aiken, of Larimer county, was not prepared to make a general report.

Mr. Alford, from 300 colonies, obtained 100 lbs. of comb-honey a colony.

J. D. Adams, of Boulder county, said: "Bees are in good condition; the average yield per colony is 27 pounds."

E. B. Porter, of Longmont, said: "I have 55 colonies, and the yield is 30 pounds each."

H. L. Rauchfuss, of Harman, said that "his bees averaged 109 pounds of extracted-honey per colony."

Mrs. Hartman said: "I have 200 colonies, all healthy."

Various subjects referring to the handling of bees, etc., were fully discussed.

On motion, the President was instructed to call a meeting on Prof. Cook's arrival.

TUESDAY'S SESSION.

The report of committee on semi-annual meeting—"Honey Day"—was received and approved. Longmont was chosen as the place to hold the same on Wednesday, Sept. 28, 1892.

The subject, "The cost of producing honey," was then fully discussed as follows:

H. L. Rauchfuss—It will cost about 8 cents per pound after making a careful estimate, figuring a man's time at $50 per month, on 100 colonies of bees.

J. B. Adams—Honey in my apiary the past year has cost me 10½ cents per pound.

F. O. Blair—We have to do the best we can; farmers are always claiming to lose money, yet they live and prosper; I believe bee-keeping can be made to pay.

R. C. Aiken—Bee-keepers hardly ever know what it does cost to produce honey; the estimate by Mr. Rauchfuss is about right.

E. B. Porter—Mr. Aiken and Mr. Rauchfuss are too high, the total cost should not be over 4 cents per pound.

L. Booth—It has been stated that the average yield per colony, through the State, for 1891, was 60 pounds; this I think too high; 50 pounds is about the average.

W. L. Porter—The average for 1890 was 67 pounds; for 1891 about 35 pounds per colony.

R. C. Aiken stated that he had handled 165 colonies alone, and they averaged 150 pounds of honey per colony.

The next subject that came up for discussion was: "Are apicultural pursuits adapted to ladies?" and brought responses from the following: Mrs. Booth, Mrs. Rhodes, F. O. Blair, J. M. Clark, V. Devinney, J. B. Adams, R. H. Rhodes, L. Booth, and E. B. Porter. It was the general opinion that women were well adapted to the business.

The subject of our semi-annual meeting was again discussed.

L. Booth, L. Brock, W. L. Porter and Dr. Shaw favored Denver as the place for the meeting.

By vote it was again decided that "Honey Day" should be held at Longmont.

Adjourned to 1 p.m.

Prospect of a Good White-Clover Crop.

A. N. DRAPER.

The prospects for white clover honey for the coming season are good. In fact, if my theory is correct, the prospects were never better at this time of the year. I see on page 194 Mr. Dibbern claims that the prospects are good, but does not give his reasons.

First, I will say that here there was no white clover honey last year, to any amount. Now, why was it so? And why is it that I look for so heavy a yield the coming Summer? Two years ago I had a very good crop of honey from white clover, and the plants undoubtedly yielded a good crop of seed. Last season a close examination failed to find any white clover seed whatever.

The weather was so dry in the Fall of 1890 that the seed of white clover did not even sprout, and what old clover lived over was so thoroughly exhausted, that it yielded neither honey nor seed; but last Spring the clover seed that had laid on and in the ground with too little moisture to cause it to sprout all Winter, came up with the favorable conditions of Spring. It got a good start before the drouths of July and August came. The rains during the last of August revived it, and gave it another start. Being young and vigorous, it withstood the severe drouth of September, October and November in good condition. Now I do not think that the heavy snows have done it any harm. It undoubtedly kept the ground from freezing very deep, and it kept it from continually freezing and thawing during the extreme cold weather. Freezing hard one night, and thawing out the next day, where it is kept up for two or three weeks in February and March, is what hurts clover, or wheat either. To get a good crop of honey or wheat, either, we need plenty of rain during April and May.

If there has been lots of snow and rain during the Winter, it takes less rain in April or May to keep the soil in good growing condition. I do not believe, if we had had ever so much more snow last Winter than we have had this Winter, that it would have made any difference in the yield last season, either in wheat or honey, as our yield of wheat was extra good last season. The wheat did not get a very good start in the Fall before, and neither did it last Fall.

Never in the history of this country has the Mississippi been so low as it was last Fall. The steamboats were compelled to abandon their business to a greater extent than ever before, on account of dry weather, or rather, low water. Does not this show that the rainfall has not been so great, as usual, the past two or three years? There is no question, in my mind, but what almost all kinds of honey-producing plants need a great deal of moisture in order to put them in the best condition for yielding nectar. Whether, as some have claimed, snow has some kind of fertilizing influence on the soil that causes it to make the plants to yield more profusely of nectar the following season, I very much doubt, only as it acts as a protection from severe winds and inclement weather.

Of course, as Dr. Miller would say, "I don't know;" but I want to profit by experience. I am speaking only of this locality.

Upper Alton, Ills., Feb. 3, 1892.

Bee-Scouts Selecting a Home.

JOHN KIDNEY.

I find that the little bee will bear a great deal of close study, and then we may not understand all of its ways. Of late there has been a good deal said about bee-scouts, some claiming that bees have scouts that go in search of some proper place for their future home, which they commonly find in some hollow tree before they migrate, while others ridicule the idea. So I will tell a little experience of my grandfather's. I have heard him tell it many times.

He was quite a bee-hunter, He says he found a bee-tree, as he supposed; the bees were flying in and out freely, and he thought he could cut the tree and save the bees in a hive, it being swarming time.

So he took the hive and the necessary things, and commenced cutting the tree, but before he had it down, what should he see and hear but a swarm of bees that came and located in the very place where he thought he already had a colony. He continued, and cut the tree, but instead of finding an old colony with its honey, he found a swarm with nothing but bees, which he saved in the hive.

His conclusion was that the bees were there to inspect andp repare the tree for their future home, and I never could talk him out of that idea.

Now, a little of my own experience is, that at two different times I have followed absconding swarms, and kept up with them, one mile or more until they went into a tree where they staid. They went straight to their destination, and I think they knew where they were going.

Oakley, Mich.

Honey-Dew—What is Honey?

GEO. F. ROBBINS.

Mr. Stone makes a mistake in his report of the proceedings of the convention, on page 41, which, though apparently slight, is not in fact so slight after all. He says that none could report any light-colored honey. The author of this article did report 100 pounds of beautiful white clover honey. I exhibited four cases of it at the fair in Springfield. Mr. Kennedy also, if I remember correctly, also had some there, but I do not remember whether he reported it at the convention or not.

HONEY-DEW.

The Secretary, in his report to the convention, makes two statements which I deem errors. One is, that to call honey-dew "bug-juice" prejudices the mind of the consumer. If it prejudices against honey-dew only, it does no great harm. But I presume he meant that it brings ill-repute upon the work of the honey-bee in general. Others there were of that opinion. It is a view in which I have never shared, although I did not express myself at the time—for there was no lack of talkers and subject matter at our meeting.

If honey-dew were not an unpopular article upon its own merits, there would be good cause to hold that view. But the actual test of the stuff upon the table is generally sufficient to turn folks against it. Some persons like it, but the great majority of honey-eaters do not—at least such is the weight of proofs so far as I can obtain them. And that is the real test of the value of anything. If the consumer likes it, it is worth something; if not, it is worthless. And to prejudice the mind by any such means against that which is valueless, is certainly an anomaly, if not an absurdity.

Now, honey-dew has found its level—as an article of commerce it is practically worthless. For my part, I want to draw the distinction between that and genuine honey, strong and sharp. I want my customers and the public to understand that "honey-dew" is no specimen of the usual work of the bee—that it is to all intents and purposes an "alien," and not to be "naturalized" and classed with honey—the proper product of the hive. In that case, no stigma which we can cast upon the spurious article will have any tendency to throw disrepute upon that which is of real and precious value.

To put honey-dew on the market as honey, in my opinion, will do, and has done that very thing, for the disgust awakened by the former on the part of the consumer, not aware of the fraud, must cling more or less to the latter. In using the term "fraud," I do not mean to insinuate fraudulent practice on the part of him who sells the article, but I do mean that honey-dew is essentially a spurious honey.

But the Secretary says that honey-dew only differs from honey in that it is exuded by the *aphis*, and falls upon the leaves, while honey and wax are exuded by bees in the hive. There is a very essential difference. Honey-dew, if the work of aphides, is a secretion of that insect. Certainly both of the articles in question are alike secretions of the bee, if either one is. In fact, both are gathered by the bees and conveyed to the hive in the honey stomach, where it is regurgitated. The honey we eat or sell has never entered the true stomach. The honey stomach is simply a sac designed for the use of the bee in carrying food, nectar, etc., to the hive. The aphides feed upon the sap of the leaves, which digests in the stomach, enters the blood, and is secreted in glands like milk. Hence, if there is not a radical difference between the two articles, I cannot talk English.

WHAT IS HONEY?

Mrs. Harrison rather agreed that honey-dew is as really honey as any other, and Mr. E. E. Hasty argues in the December *Bee-Keepers' Review* that sugar syrup fed to the bees becomes honey. Now, I tell folks that honey is the nectar from flowers, but that it undergoes some slight chemical changes in the honey stomach. Webster says that honey is "a sweet juice collected by bees from flowers, and deposited in comb in the hive." Prof. Cook is my other principal authority. Are they correct, or shall we call any sweet liquid (sorghum molasses, for example) honey, that the bees may carry into the hive?

A VALUABLE FACT.

One more point: Mrs. Harrison, in her excellent essay, called attention to a most valuable fact. It is this: Nature abhors self-fertilization. When the pistils of the apple blossom, for example, which contains the organs of both sexes in one, are ready to receive the fertilizing powder, the anthers of that flower have not opened, while by the time they are burst the pistils are past that stage. It therefore becomes necessary to transfer the pollen from one flower to another. *Now* it is that nature spreads a feast of delicious, fragrant nectar which entices the bees to those flowers. From blossom to blossom they flit, gathering the pollen-grains from one flower and dropping them into the open stigmas of another. This is cross-fertilization, and in fertilizing fruit-bloom bees are the principal agents, inasmuch as they are the only insects that have survived the Winter in any great numbers.

Now we often teach the use and necessity of bees in the fructification of blossoms in a general way, but we fail to give the *why* and *how*. Here we have them. A member of the Legislature or a fruit-grower not posted as to facts, may well be skeptical, and sharply inquire why? how do you know? or reject the teaching altogether. But if the above data are properly spread before them, they are enough to convince any reasonable man. General assertions have of themselves but little power. The potency of truth is in the details—the proofs. It will do us but little good, I fear, to skirmish around the truth in this case. We should open the matter to the core, and show that truth in its nakedness.

Mechanicsburg, Ills.

Haldimand, Ont., Convention.

E. C. CAMPBELL.

The Haldimand bee-keepers held their annual meeeting at Cayuga, Ont., on Saturday, Jan. 30, 1892. Israel Overholt, President, in the chair. The minutes of last meeting were read and approved.

The following officers were elected for the current year:

President—Israel Overholt.

Vice-President—Robert Coverdale.

Secretary and Treasurer—E. C. Campbell.

Directors—Jas. Armstrong, F. A. Rose, Owen Fathers, M. Richardson and W. Kindree. Auditors—James Jack and Alex Stewart.

Mr. Rose asked whether colonies of

bees wintered better in separate clamps, or a number of colonies in one clamp?

Mr. Armstrong thought they wintered better in separate clamps, and were more convenient to handle.

Mr. Stewart wintered his bees in single clamps, and had never lost any.

In answer to Mr. Jack, Mr. Armstrong said he left his bees in clamps as long as he possibly could, so as to prevent chilling in the Spring.

The President asked whether in an ordinary season he would get a better yield of honey by preventing swarming, or by allowing one swarm.

The general opinion was in favor of allowing one swarm, as the bees worked better.

Moved by Mr. Rose, seconded by Mr. Jack, that this Association be affiliated with the Ontario Bee-Keepers' Association, and that the Secretary send the necessary fee of $5.

The next meeting will be held at Nelles' Corners, on the last Saturday in May.
E. C. CAMPBELL, *Sec.*

Prevention of Swarming, Etc.

MRS. JENNIE ATCHLEY.

As I see in the report of the North American Bee-Keepers' Association a good deal regarding the prevention of swarms, I would like to state that bee-keeping in the South, or north Texas at least, is different from bee-keeping in the North. I find we have had but little trouble here with our bees swarming during the honey harvest, for honey usually comes so fast that the bees seem to "lose their mind," as it were, and go crazy to store every drop of honey they can, crowding the brood-nest and all, chock-full. Our trouble rather runs the other way, as we must extract some brood-combs to give the queens a chance to lay.

I have seen the bees so crazy that on opening the hives in the height of the harvest, they would jump right at their queens and "ball them," just as though they were angry because they had run out of brood and were going down hill in bees, and it was her fault! They had good young queens, too. Nor was this caused by robbing, or bees mixing, or anything of the kind, for a barrel of honey might be emptied in the apiary, and they would pay no attention to it.

Our swarming fevers occur when honey comes in slow, say in April and May, just enough to stimulate brood-rearing to its highest pitch. From April 20 to May 20 is usually the hardest month on bees in north Texas, as there is a link out of our chain of honey resources that we must supplant by feeding at least our week colonies, unless we have an extra good season.

DISTANCE VIRGIN QUEENS FLY.

In my 12 years' queen-breeding I have found that the nuclei nearest the drone hive have their queens more uniformly mated than those in other parts of the yard; that is, if any do mismate it is those furthest from the drone-hive. Abundance of drones all through the mating yards is my motto.

Floyd, Tex.

Apicultural Experiment.

The experiment conducted by the Ontario Agricultural and Experimental Union was, testing to what extent, if any, the bees thin out the septum, or base of comb-foundation before storing the honey in the comb, and what effect various thicknesses of foundation has upon the thickness of base, finally left by the bees. The object of this was to see if heavy grades of foundation would leave an undue amount of wax in the comb, making it unpleasant to the consumer, and injuring the sale of comb-honey; or if it might be drawn out into the cell walls by the bees.

The comb-foundation was supplied free of all charges to the ones agreeing to conduct the experiments. There were three grades sent out, being 6 feet to the pound, 10 feet to the pound, and 12 feet to the pound, known as medium brood, thin surplus, and extra-thin surplus comb-foundation. The sections were marked accordingly before putting into the hive, and instructions given to place all over the center of the brood-chamber to give all alike favorable positions, or otherwise, for drawing out and building on the foundation.

Owing to the very unfavorable honey season generally, some were unable to get the foundation drawn out at all. These we hope to secure next season.

In testing for sections which had the thinnest base, the three samples were taken without looking at the number of feet per pound, marked on the wood, and by looking through the base of the section and taking a piece of each comb in the mouth, the order of thickness was found, and in almost every instance the order was the same as when the foundation was placed in the sections.

In no case was the least difficulty experienced in discovering that the foundation, 6 feet to the pound, was the heaviest—the base and also the wall was heavy, and the feeling, when eaten with honey in the mouth, very unpleasant.

In Mr. R. F. Holtermann's test a heavy honey flow was secured artificially, by putting a feeder on top of the hive, holding about 15 pounds, and the bees built the comb out very quickly. In this lot, when the honey was extracted and the wax was cold, the cell-wall built on by the bees was broken away, and, underneath, the foundation was found in nearly if not exactly the same condition as when put in the sections.

The general results tend to show that comb-foundation in sections is not thinned by bees, as is generally supposed. Twenty-four applied for material, out of which the following reported, thus :

By Whom Conducted.	Flow.	6 ft.	10ft.	12ft
Dr. Geo. Duncan. Embro.	Light.	1	3	2*
E.L.Goold & Co.,Brantford.	Medium.	1	2	3
Geo. E. Adams, “	Medium.	1	2	3
Wm. Mobray, Sarnia.		1	2	3
E. M. Husband. Cairngorn.	Medium.	1	2	3
Miss H. F. Buller, Campbellford.		1	2	3
Wm. German, Beachville.		1	2	2
R.F.Holtermann,Brantf'rd.	Heavy.	1	2	3†
Geo. Barber, Hartford	Light.	1	2	3
S. Rightmeyer, Wooler.		1	2	3
W. Haight, Wellington.	Medium.	1	2	2
James Shaw, Kemble.	Medium.	1	2	3

*A scarcely perceptible difference between 2 and 3.
†A very marked difference.

EDGAR M. HUSBAND,
W. HAIGHT,
R. F. HOLTERMANN,
Apiarian Committee.

Bees Selecting a Home Before Locating.

JAS. POINDEXTER.

I do not consider myself much of a debater of bee-questions, aspiring only to mere success and facts in bee-culture. In the article on page 813 (1891), Mr. Demaree scouts the idea of bees going forth from the clustered swarm in search of a home, and ranks it among the superstitions of antiquity. I am a decided believer in this "ancient story," and also of that other "less popular" one, of bees cleaning out and gluing up before moving into their home.

During the swarming season of 1873, I noticed bees going in and out of a hive in which there were some empty combs. They continued until evening, and when late I examined the hive I found no bees whatever, but some dirt and chippings on the floor board, also in front, and on the ground, and the combs somewhat polished off.

The next morning work was resumed at this hive with renewed energy. I took a position near by to note the proceedings, and I could see a line of bees going to and from the hive in an easterly direction for a considerable distance.

About 10 o'clock I heard an uproar at my next neighbor's east. It sounded like an old-fashioned charivari. Soon one of the men came rushing out in view, and shouted, "There comes a swarm of bees!" and, sure enough, there came one right on the line I had been looking at awhile before, and entered the hive.

My neighbor had no bees, and a swarm was seen coming about two miles east of here a short time before. This circumstance was suggestive, several hives were prepared with empty combs. In a few days more bees were seen "cleaning house." I soon found the direction they were coming from, and the next forenoon I went in search of them. I "lined" them about a mile out in the prairie, when they were lost track of, and the bee-hunt was changed to that of wild strawberries.

After an hour I went back to return home on the line, thinking the bees might have been overlooked. I soon discovered there were no more bees going to and fro, as I had seen when coming out, until the grove was reached, ¼ mile from home, when several bees were seen circling around as if lost. I had strong suspicions what this meant—the swarm I had been looking for had passed, and in going through or over the trees, some of the straggling bees were left behind. I hastened home, and found the bees had got in 15 or 20 minutes ahead of me, and taken possession of their hive. My folks saw them come.

I will give one more instance which seems to indicate that the scouts may be at work at more than one place at a time: Bees going in and out of a decoy hive were traced ½ mile distant, to where the swarm had been settled on a tree in a neighbor's barn-lot, but he had hived them the evening before. The scouts still visited my hive for a day, when they decamped from my neighbor's hive and went into a tree in the woods. After this they ceased to visit my place altogether.

I have had from 1 to 4 swarms the same year, to come, clean and move into hives in my apiaries, several times in the last 20 years.

Bloomington, Ills.

CONVENTION DIRECTORY.

Time and place of meeting.

1892.
Feb. 23.—Cortland Union, at Cortland, N. Y.
M. H. Fairbanks, Sec., Homer, N. Y.

Mar. 1.—Weld County, at Greeley, Colo.
H. E. English, Sec., Greeley, Colo.

Mar. 1.—Wabash Valley, at Vincennes, Ind.
Frank Vawter, Sec,, Vincennes, Ind.

Apr. 6, 7.—Texas State, at Greenville, Tex.
A. H. Jones, Sec., Golden, Tex.

Apr. 21.—Colorado State, at Golden, Colo.
H. Knight, Sec., Littleton, Colo.

May 5.—Susquehanna Co., at Brooklyn, Pa.
H. M. Seeley, Sec., Harford, Pa.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Eugene Secor..Forest City, Iowa.
SECRETARY—W. Z. Hutchinson....Flint, Mich.

National Bee-Keepers' Union.

PRESIDENT—James Heddon ..Dowagiac, Mich.
SEC'Y AND MANAGER—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Scarcely any Surplus Honey Taken.

I have been a bee-keeper for about 20 years, but I do not claim to be an expert in the business, although the business has paid well, considering the time I have given to it. I live on a farm, and have horses, cows, hogs and crops to look after, with but little help, so there is not much time to spare with the bees. With us here in southwestern Iowa, last year was a failure, scarcely any surplus, and in many cases bees failed to get sufficient stores to take them through the Winter. We have not had a good honey crop for several years, but I am hoping that this year will be one of prosperty for the business of honey production. I have 70 colonies, all on the summer stands—about one-half of them have enough honey to last them until fruit bloom, and the balance will have to be fed, or starve.

THOMAS WOODMANSEE.
College Springs, Iowa, Feb. 8, 1892.

Carbolic Acid for Bee-Paralysis.

The grippe has dealt very generously with me this time, as my wife, two children and myself (my whole family) have had a very severe attack. I was laid up from my business (druggist) one week, but we are getting all right again. I think the carbolic acid treatment for bee-paralysis is an excellent treatment, as I could see a good effect the first twelve hours, and after three days' treatment they seemed to be entirely cured. That one suggestion was worth the price of the BEE JOURNAL for one year on that one colony alone. Bees seem to be gathering some honey now on nice days here, from alder and willow buds.

J. B. RAMAGE.
Blaine, Wash., Feb. 4, 1892.

Bees Wintering Finely.

My bees seem to be wintering finely. They have had some splendid flights lately, but seem to speck the hives pretty badly. I suppose the honey-dew caused it, but I notice every one has cleaned out its hive of dead bees, and I think this one of the best of signs, for for when they are strong enough to do house-work, they have not the "grippe" very badly—not as badly as their keeper had it last month, as he could not do his chores.

J. W. BLODGETT.
Empire Prairie, Mo., Feb. 8, 1892.

Bees in Winter—Honey Vinegar.

At the present time most of the young bee-keepers here have become discouraged with bee-keeping, and have left their bees to winter as best they may on the summer stands. Some have been lost by starvation, but those having plenty of stores are probably better off than those wintering in the cellar, unless those in cellars are taken out once in a while when a fine day occurs to have a cleansing flight, as the honey-dew is showing its bad effects. I have 30 colonies, which I winter in a good, dry bee-cellar. On Dec. 13 and 14 they had a good flight, after which I put them into the cellar, when they died by the hundred, yet there seemed to be no serious loss to any individual colony. January being rather cold throughout, the bees were very quiet until the last days of the month, when they began to roar. Upon examination I found that quite a number were affected with diarrhea, as they had the hive fronts badly daubed up. I decided at once to take them out, so on Jan. 31 I did so. Kind Providence sent us a most beautiful day on Feb. 1, and the bees came out and filled the air like a monster swarm. To-day I put them back into the cellar, quiet and contented. This taking them out and in is quite a job, but I would do anything to save my bees, as I anticipate a great honey-flow the coming season, especially as there is a good stand of white clover. We have had no nice honey for two years, but I am not discouraged in the least, if the bees will only go through the Winter safely. I used my last year's crop of honey-dew to make vinegar—and prime white vinegar it is making. W. P. ODENDAHL.

Moline, Ills.

Size of Brood-Nest in Wintering.

My bees are not wintering very well. They are in boxes on the summer stands, packed in forest leaves. I think that I will lose 35 per cent. I would like to know if the brood-nest of my hives is too large for successful production of comb-honey. It is 10¼x19⅛, inside measure, and 8 frames to the hive.

THOMAS REHORET.

Eden, Wis., Feb. 11, 1892.

[The size of the frames has "nothing to do with the case." Any trouble from the weather is also out of the question. The food, either the quality or quantity, is responsible for any unfavorable condition of the bees at this time. It is either insufficient, and the bees are starving, or its quality is detrimental, such as honey-dew, sour, etc.—ED.]

The Mating of Queens.

On page 160, Mr. John D. A. Fisher says he is puzzled about the mating of his Italian drones with his neighbor's black queens, a mile or more away, while he thinks that all but two of his own Italian queens mated with Italian drones, although there were plenty of black drones only a half mile from his apiary, and one colony of black bees in his own. I have no doubt but what a large part of his seemingly purely-mated queens, showing the usual marks of the three bands are nothing but hybrids, and if he should try to rear pure stock from those same young queens, and put them where none but Italian drones were within ten miles, yet he would get only mongrels, or at least a very small percentage of pure bees. In my opinion, the first cross from pure light-colored Italian queens with black drones will produce bees that pass for pure Italians. If he will refer to the article on page 160, "Ascertaining the Purity of Italian Bees," he will, I think, get an annwer, in part at least, to his query. GEO. S. WHEELER.

New Ipswich, N. H.

Gable Roofs for Hives.

On page 197, you say that after tipping the flat cover, the excuse for gable roofs to hives are done away with. I have both in my yards, and prefer the gable roof. I know the flat covers are handy to stack up in moving, and that is all the advantage they are for me. I can put the bee-feeder under the gable roofs ; keep caged queens on cool nights; and store my lunch there when I go to out-apiaries. secure from ants. In hot weather I take off the quilts, and the bees can cluster on the top of the frames when moving. I find a great many other advantages too numerous to mention, and I have a bee-wagon that takes 24 hives without stacking up, and that is load enough.

MRS. JENNIE ATCHLEY.

Floyd, Tex., Feb. 9, 1892.

[Well done, Sister Jennie ; you have found quite a number of recommendations for gable roofs for hives, including a cupboard for your lunch ! When it comes to pure, native genius—commend us to the well-developed, fertile brain of a lady. Your enumeration is proof of your full appreciation of the small things which make ours a successful pursuit.—ED.]

Season Below the Average.

The past season was a good deal below the average with us. In 1890 we obtained 60 pounds of honey per colony, Spring count, while last Summer we only secured 40 pounds per colony, Spring count. However, I have good hopes of the coming season, as my bees seem to be wintering well. They have plenty of stores, and are populous. My bees are wintering in a bee-house, double-walled, and filled between with sawdust, also a foot of sawdust overhead. They are all in single-walled hives, and are mostly black bees. I purchased two 5-banded golden Italian queens, and also two Italian queens. Should they winter successfully, I shall report later. I work chiefly for extracted-honey, using the Richardson extractor. The coming season I intend to produce a good deal of comb-honey in sections 4¼x4¼x1⅞.

JOHN CARRICK.

Hay, Ont., Jan. 8, 1892.

Bees in Cuba—On Shares.

I have in contemplation a very large apiary, out of this one I actually possess, and am daily improving. I apply to you for a satisfactory solution of the following question: A neighbor and friend of mine owns some 825 acres (25 caballerias) of land, situated in a very appropriate place for bee-rearing, about four miles distant from this apiary. My success in this, induces him to let me set the new apiary right on his premises, without his having any further investment in the enterprise. What is the share he should have in the profits?

J. C. BARREDO.

Island of Cuba, Jan. 26, 1892.

[His share should be about 10 per cent.—or anything you can both agree upon.—ED.]

Wintering in a Bee-Cave.

Last year was a year of plenty of every thing. The flow of honey was good, more so than any year before, and the bees were on the wing from morning until night, bringing in the best of honey. Last Summer I built a good cave for the bees. I put them into it the last of December, and at present they are in good condition. Their combs are dry, with no signs of any disease. The cave has paid me well for my trouble. The BEE JOURNAL is a welcome visitor, as it brings light and life to every bee-keeper, East or West.

N. W. AFFLERBAUGH.

Cameron, Nebr., Feb. 9, 1892.

Bees Wintering on Honey-Dew.

On page 216 is an article from the Michigan *Farmer*, stating that an Iowa bee-keeper had lost many of his bees by feeding them on honey-dew. The secretion of this substance was unprecedented in this State the past year, and in no part of the State was this more noticeable than in this part (central) and yet bees in this section are wintering all right. There are bee-keepers here who will lose many bees, but it is as usual—the result of indifferent or no special care. This Winter proves to me that honey-dew cuts no figure in the Winter problem, for, as far as appearance goes, the bees are just as quiet, and enjoying as good health, as usual, though all the stores contain more or less of this substance. Most of the honey gathered in this part of the State was unsalable from this cause. The bee-keeper in Iowa who loses his bees this Winter will lose them on account of lack of food, or of careless management—nothing else.

G. R. PIERCE.

Blairstown, Iowa, Feb. 12, 1892.

The Ohio State Convention.

Our Ohio State Bee-Keepers' Convention adjourned this afternoon to meet again at Washington C. H., Ohio, at the call of the President. The officers for the ensuing year are: S. R. Morris, Bloomingburg, O., President; C. F. Muth, Cincinnati, O., Vice-President; Miss Dema Bennett, Bedford, O., Secretary and Treasurer. The best of feeling prevailed throughout our meetings, and if they were not as large as we had expected, they were interesting to everybody present. We had among us Dr. C. C. Miller, of Marengo, Ills., and we had a programme besides, every question of which was exhaustively digested. What sane man could doubt the assertion that our meetings were both interesting and instructive? All were agreeably surprised by the kind invitation of the President of the Merchant's Exchange, to visit the Chamber of Commerce. The courtesy was accepted with pleasure by all.

CHAS. F. MUTH.

Cincinnati, O., Feb. 12, 1892.

Wavelets of News.

Vaseline for Stopping Robbing.

I promised to give some further account of an upset among my bees in consequence of an attack by robbers through the careless replacing of a hive roof. The robber bees got into the super in hundreds, and, after the roof had been righted, they crowded about every joint and crevice of the neighboring hives, as well as the one in question. So I got my smoker in play, and as the bees were smoked off, I painted the joints with vaseline.

To my great relief, I found that this stopped the robbing, for not a bee would come within an inch of where the vaseline was. To make doubly sure, I also painted around the entrances, being careful, of course, to keep it off the alighting-board.

By this time the prisoners in the hive roof were trying to escape by the cones, as I had stopped the entrances to the latter, while applying the vaseline; so before I released them I painted around the base of each one in the same way, and this effectually stopped the attack in that quarter, for in less than an hour all were working as usual. Not a bee was killed, not a sting inflicted, and peace was restored.

Another "dodge" that I have found effectual is this: On the morning of the day on which you are going to take the honey, put a couple of pieces of naphthaline at the ends of the frames, next to the sides, and it will stop any stranger bees from entering the hive by the usual entrance.—T. H. C., in the *British Bee Journal.*

Mice in Bee-Cellars.

There is no cause for being alarmed if dead bees accumulate on the floor of the bee-cellar. Such things are to be expected. They are the old bees, and the sooner they are out of the way the better. They will never be workers again, and the sooner they perish the less honey they will consume. It will be best to keep a sharp lookout for mice; they are about the worst thing that can get into the hives in the cellar, and if the bottom-boards are off they will be apt to enter the hives. You will notice the dead bees being eaten, and when you see little pieces of whittlings of comb, look for the mice, and catch them if possible. It is the yellow pollen the mice like, but they sometimes destroy a good deal of honey getting at it, and in the bee-hives is not just the proper place for mice anyway.—*Exchange.*

Candy for Feeding Bees.

There may be some who neglected to feed their bees sufficiently in the Fall. The only practical remedy is to give them candy, as it is too cold to feed them sugar syrup. Candy is much cheaper than honey, and is about as good. I prefer to feed them candy before their supply of honey gets too scant, so if by any reason at times they are not able to eat the candy, they will still have a supply of honey.

Candy cannot be successfully fed to bees unless we use a chaff cushion above them to confine the warmth, and keep the candy warm and moist. It may be made in thin cakes, and laid on top of the frames, or mold it in a frame and hang it in the hive close up to the cluster of bees. Always have the candy in contact with the bees, or they may not be able, on account of cold weather, to get to it. Keep them bundled up warm and dry, and they will do nicely.

To make the candy, put some granulated sugar in a pan, and add a small amount of water. Stir it well, and do not let it get burnt; which is almost sure death to the bees. When done, pour in a shallow pan to cool, and stir lightly until it just begins to "grain," then leave it alone until it cools, when it will be ready for use.—E. S. MEAD, in the *Orange County Farmer.*

Bee-Convention at the World's Fair.

D. A. Jones, of Canada, proposes that bee-keepers hold a convention at the World's Fair, lasting one or two weeks. The idea is a grand one; and let the bee-keepers of all nations be invited to come and bring their hives, whether of wood, straw, earthenware, stone or mud. Tell them to come and be welcome.—MRS. L. HARRISON, in *Prairie Farmer.*

Convention Notices.

COLORADO.—The Spring meeting of the Colorado State Bee-Keepers' Association will be held in Golden, Colo., on April 21, 1892.
E. B. PORTER, Pres.
H. KNIGHT, Sec., Littleton, Colo.

COLORADO—The second meeting of the Weld County Bee-Keepers' Association will be held in Greeley, Colo., on March 1, 1892, at 10 a.m., on call of the President.
Greeley, Colo. H. E. ENGLISH, Sec.

TEXAS.—The 14th annual meeting of the Texas State Bee-Keepers' Association will be held at Greenville, Hunt Co., Tex., on Wednesday and Thursday, April 6 and 7, 1892. All interested are invited. A. H. JONES, Sec.
Golden, Wood Co., Tex.

PENNSYLVANIA.—The tenth semi-annual meeting of the Susquehanna Co. Bee-Keepers' Association will be held at Bullard's Hotel in Brooklyn, Pa., on Thursday, May 5, 1892, at 10 a.m. All are cordially invited.
Harford, Pa. H. M. SEELEY, Sec.

NEW YORK.—Cortland Union Bee-Keepers' Association will hold their annual meeting in the W. C. T. U. rooms over Chas. Collins' store in Cortland, Tuesday, Feb. 23d, 1892. All interested in bees are earnestly requested to be present. J. H. KENNEDY, Pres.
M. H. FAIRBANKS, Sec., Homer, N. Y.

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YOU NEED an Apiary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for $1.25; or for 200 colonies for $1.50. *Order one now.*

Supply Dealers desiring to sell our book, "Bees and Honey," should write for terms.

We Club the American Bee Journal and the Illustrated Home Journal, one year for $1.35. Both of these and Gleanings in Bee Culture, for one year, for $2.15.

If You Have any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time.

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

When talking about Bees to your friend or neighbor, you will oblige us by commending the BEE JOURNAL to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the Convention Hand-Book, by mail, postpaid. It sells at 50 cents.

A Splendid Map.—In these times when the press keeps the people posted on the World's doings, not only in our own great country but in the other continents, every home should have a World's Map as complete and authentic as possible for frequent reference, to know exactly where events are occurring.

Such a Map is sent prepaid to any address in the United States by the publishers of that great agricultural paper—THE PRAIRIE FARMER, Chicago, Ill., with that paper one year for $1.75. The Map alone is sold regularly for $5, but by a special arrangement for a great quantity of the Maps the above special offer is made possible.

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◆

If You Want to know how Queens are fertilized in upper stories, while an old Queen is laying below—how to *safely introduce* Queens at any time when bees can fly—all about different bees, shipping Queens, forming nuclei, multiplying or uniting colonies, etc.—send us $1.00 for "Doolittle's Queen-Rearing;" 170 pages; bound in cloth, and as interesting as a story.

◆

Winter Problem in bee-keeping; by G. R. Pierce, of Iowa, who has had 25 years' experience in bee-keeping, and for the past 5 years has devoted all his time and energies to the pursuit. Price, 50 cents. For sale at this office.

The Convention Hand-Book is very convenient at Bee-Conventions. It contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee-Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with Subjects for Discussion. In addition to this, there are about 50 blank pages, to make notes upon, or to write out questions, as they may come to mind. They are nicely bound in cloth, and are of the right size for the pocket. We will present a copy for one new subscription to the BEE JOURNAL (with $1.00 to pay for the same), or 2 subscribers to the HOME JOURNAL may be sent instead of one for the BEE JOURNAL.

◆

When Writing a letter be sure to sign it. Too often we get letters with the name of the post-office, but no County or State. One such came recently, and we looked into the Postal Guide and found there were places by that name in 13 States. Be sure to stamp your letter, or it may go to the dead letter office, in Washington, D. C.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

WANTED—Bee-keepers to send for my price and samples of Comb-Foundation.
JACOB WOLLERSHEIM, Kaukauna, Wis.
1Atf

WANTED—A situation in an apiary or hive manufactory. I am willing to make myself generally useful.
J. W. TEFFT.
5Atf 318 Swan St., Buffalo, N. Y.

WANTED—To exchange Bees, Honey and Supplies for Cash or Tinners' Tools.
J. A. BUCKLEW, Warsaw, Coshocton Co., O.
5Atf

WANTED—A good hand to help with Bees and Honey, and work at farm work the balance of the time.
E. DRANE & SON.
7A2t EMINENCE, KENTUCKY.

WANTED—A married man, or single, who understands Bee-Keeping and Gardening. In replying, state experience and wages desired. Come in Feb.
J. B. SUMMERS,
8A1t Berthoud, Larimer Co., Colo.

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THOMAS G. NEWMAN,
EDITOR.

Vol. XXIX. Feb. 25, 1892. No. 9.

Editorial Buzzings.

Two Things that should never fret you,
Neither worry nor annoy—
"What you can help—what you can't help;"
Then your life would be all joy.
—A. B. JINGLER.

◆

G. W. Demaree's second attack of sciatica, last Fall, was followed with *La Grippe* in his family—so our genial friend has had his full share of adversity this Winter. It is a pleasure to be able to report that a marked improvement now exists in his family, and we hope that his sciatica will not return again to trouble him.

◆

Regulations for exhibitors in the several departments of the Exposition have been issued, and can be obtained by all intending exhibitors by applying for them, either in person or by mail.

Fire destroyed the residence and nearly all its contents of Mr. and Mrs. Charles Turner, of Wenona, Ills. Their two little boys went into the cellar, with a candle, for apples, and accidentally caught the straw on fire. So rapidly did the flames spread that the fire was beyond control before help came—Mr. Turner being absent at the time. Their many friends have presented them with nearly $500 in cash, so as to divide the loss with them, as they had no insurance. Mr. T. is a bee-keeper, and one of our subscribers. We congratulate him upon the escape from the burning building of his wife and children.

◆

The Illinois State Exposition Board has set apart $40,000 as a special fund for the encouragement of live stock exhibits at the Fair. The fund is apportioned as follows: Horses, 37 per cent.; cattle, 30 per cent; hogs, 15 per cent.; sheep, 12 per cent.; poultry, 6 per cent.; for bees, *not a cent! They are not recognized!*

◆

The Marshall County, Ill., Farmers' Institute was to have opened on Feb. 2, but was postponed on account of the ravages of *La Grippe*, until March 1 and 2. Mr. A. Coppin is to give an address on "Bees—how to manage them successfully," as we notice by the report of the Executive Committee of that society.

◆

The Horticultural Department of the World's Fair is planning to have a magnificent rose garden in which will be fully 50,000 plants, besides large groups in special areas. The garden will be of classic design with temples, arbors, archways and trellises.

◆

The Editor of the *British Bee Journal* has had a severe attack of *La Grippe*, from which he is now slowly recovering. We are fully able to comprehend its meaning, and condole with Bro. Cowan.

That Sugar-Honey article in the *Review* has raised quite a rumpus, as it should have done, for (as Friend Hutchinson says in the *Review* for February) it is "rankest kind of heresy."

We have no desire to be *unfair*, and did not intend to convey the idea that either the *Review* or its correspondent *advised* the placing of such a manufactured article upon the market in a faudulent manner—but they came altogether too close to it! The following, which appears in the last issue of the *Review* as an editorial explanation, will reveal their true position:

> While I have not a particle of doubt that a bee-keeper experienced in "feeding back" could, with sugar and honey at the present prices, produce comb-honey at a profit by the feeding of sugar, I am not yet ready to advise such a course, even if customers were informed in regard to the matter, as mentioned by Mr. Hasty.

Then what *excuse* could possibly be given for its publication? We can see none! But the *Review* continues:

> The publication of the Hasty article has been compared to the Wiley pleasantry. What Wiley wrote was a LIE. What Hasty has written is *true*. No one disputes that. The only questions is, whether it was policy to *tell* the truth.
>
> I presume that the publication of that article in the general newspapers of the day might be prejudical to the interests of bee-keepers, in the same way that the "everlasting clack" in them, about adulteration, prejudices the public against honey; but among *ourselves*, in our own family, in our own class journals, it does seem that a man might speak his mind freely.
>
> Of course, what Friend Hasty has written is the rankest kind of heresy, and I may be equally guilty in giving it publicity, yet it must be remembered that we little know what may come in the future. Heretical ideas are usually advanced ideas, shocking as they sometimes are, and as editor of the *Review* I feel like allowing free speech, so long as it is said decently and in order.

While we do not, for a moment, imagine that harm was *intended* either by the *Review* or its correspondent, yet we believe that they have inadvertently done more damage to the pursuit than they can repair in a life-time.

This thing cannot be kept *sub rosa*—it will get into "the general newspapers of the day" in spite of all our endeavors to prevent it; and like "the Wiley lie," it will have its run "the world over"—to our detriment and disgust! *It is a pity*—A GREAT PITY!

Rules to govern judges in awarding premiums at Fairs, on bees, honey, wax, and apiarian supplies are an absolute necessity. We are glad to state that Mr. Robbins has presented a "code of rules" on page 283. This will serve to introduce the subject and excite comment. Mr. Robbins wrote us as follows, concerning the matter:

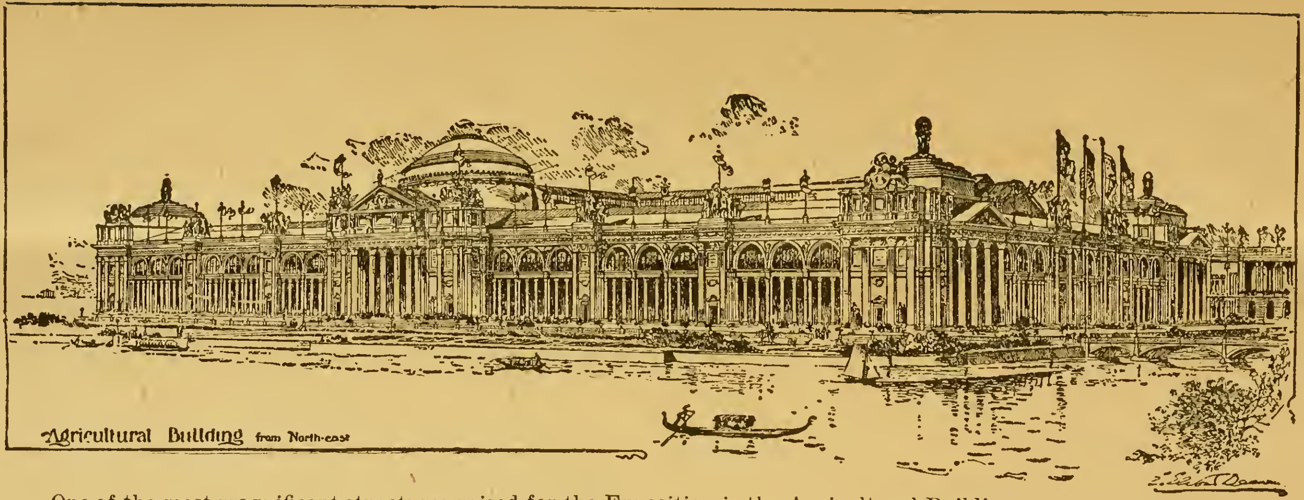
> In preparation of these Rules, I have not consulted the rest of the committee because I feel certain that they would like help as well as myself. I dare not offer it as a perfect code. I want criticisms and suggestions that will help us to get at a perfect one. Now, others may not think as I do, but I regard it as an important matter. Necessarily such a code can in the main be advisory only, but standards settled upon by the bee-keepers interested will be a help to both exhibitors and judges, and enhance the value of apiarian exhibits. Now let us have a free interchange of all opinions.

Two Glass Cases, 4 feet wide, 5 feet high, and 300 or 400 feet long are to be built for the American Honey Exhibit. Aisles are to be between them, and the "Implement" Exhibit will run parallel with these cases, 3 by 400 feet. So the Apiarian Exhibit is to be in one body in the Agricultural Building, as shown on the next page.

Wood Brothers, Chicago Live Stock Commission Merchants, have issued their third bi-ennial number of their excellent pamphlet, "Facts and Figures." It gives a vast amount of statistical information about prices, production and marketing of live stock nowhere else obtainable. Parties interested in the trade can obtain a copy free by addressing Wood Brothers, Union Stock Yards, Chicago, Ills.

AGRICULTURAL BUILDING OF THE WORLD'S FAIR,

Where the Bee and Honey Exhibit will be located.



One of the most magnificent structures raised for the Exposition is the Agricultural Building.

The Apiarian Exhibit is located on the second floor, and occupies the entire side on the right of the illustration.

The style of architecture is classic renaissance. This building is put up very near the shore of Lake Michigan, and is almost surrounded by the lagoons that lead into the Park from the lake. The building is 500x800 feet, its longest dimensions being east and west. The general cornice line is 65 feet above grade.

On either side of the main entrance are mammoth Corinthian pillars, 50 feet high and 5 feet in diameter. On each corner, and from the center of the building, pavilions are reared, the center one being 144 feet square. The corner pavilions are connected by curtains, forming a continuous arcade around the top of the building.

The main entrance leads through an opening 64 feet wide into a vestibule, from which entrance is had to the rotunda, 100 feet in diameter. This is surmounted by a mammoth glass dome 130 feet high. All through the main vestibule statuary has been designed, illustrative of the agricultural industry. Similar designs are grouped about all of the grand entrances in the most elaborate manner. The corner pavilions are surmounted by domes 96 feet high, and above these tower groops of statuary. The design for these domes is that of three female figures supporting a mammoth globe.

To the southward of the Agricultural Building is a spacious structure devoted chiefly to an Assembly Hall, and is conveniently near one of the stations of the elevated railway. Broad stairways lead from the first floor into the Assembly room, which has a seating capacity of about 1,500, and furnishes facilities for lectures, embracing every interest connected with live stock, agriculture and allied industries. Here would be a good place to hold the World's Fair Bee-Convention.

Queries and Replies.

Comb Foundation for Sections.

QUERY 807.—1. Which do you prefer, light, medium, or heavy foundation for sections? 2. What per cent. do we gain, if any, by using full sheets of foundation in sections?—Subscriber.

1. The very thinnest.—DADANT & SON.

1. Light. 2. I do not know.—A. B. MASON.

1. Light. 2. Little, if any.—M. MAHIN.

1. Between light and medium. 2. Fully 10 per cent.—J. P. H. BROWN.

1. What is classed as "thin." 2. I do not know.—C. C. MILLER.

1. Extra thin. 2. I do not know.—J. M. HAMBAUGH.

1. The lightest I can get. 2. I do not know, as I never tested it.—MRS. JENNIE ATCHLEY.

1. The very thinnest I can make or buy. 2. It is difficult to tell just the percentage.—H. D. CUTTING.

1. Light. 2. I cannot say. We get straight combs, and I believe enough more honey to pay.—A. J. COOK.

1. Medium. 2. We gain in more than one way, but it would be hard to calculate the per cent.—R. L. TAYLOR.

1. *Very* light. 2. The honey presents a much finer appearance when built on full sheets of foundation.—G. M. DOOLITTLE.

1. The very thinnest. 2. Perhaps nothing in amount of honey stored, but the comb will be fastened to the sides and bottom better.—EUGENE SECOR.

1. Light. 2. I do not know, but am sure that the bees will go to work on full sheets much sooner, and of course fill them in less time.—E. FRANCE.

1. Very light; in fact as light as it can be made and hold well together. 2. I have never thought of the matter, or given it any attention.—J. E. POND.

1. I prefer Dadant's "extra thin." A friend of mine, who is "up to snuff," favors the very thin flat-bottom foundation. But we agree on the thin foundation. 2. I think we gain nothing by using full sheets. Starters are just as good, and the honey is better.—G. W. DEMAREE.

1. I use the light foundation, as it is cheaper, and leaves no "fish-bone" in the honey. 2. That is a difficult question, but I *think* there is quite a gain.—C. H. DIBBERN.

1. Light. 2. I never could see more than a slight difference between full sheets and a ½ or ⅝ strip in the time sections are filled—not enough to pay for extra cost and labor.—MRS. L. HARRISON.

1. Light, every time, and all the time. About 100 full size sheets per pound. 2. I cannot say as to per cent., but I am sure there is positive gain in quantity, and also in appearance of the honey.—S. I. FREEBORN.

1. The lightest natural-bottom foundation. 2. The gain is in several directions, and it would be difficult to estimate it by percentage. It would pay with foundation at double the present prices.—J. A. GREEN.

1. Very light, always. There ought to be a law to prevent the use of heavy comb-foundation in sections. There is an unwritten law. 2. I could not give the per cent., but it is quite a little more than legal interest in this locality.—P. H. ELWOOD.

1. The thinnest foundation that can be made is best for sections. 2. It is doubtful if, taking one year with another, anything is to be gained by using full sheets of foundation in the sections. I prefer a starter about 2 inches wide.—G. L. TINKER.

1. Foundation with wax enough to make the entire cell, providing the bees have not begun to secrete wax. If they have begun to secrete wax, I would use the lightest foundation I could get. 2. The per cent. of gain would be greater during a short-abundant flow, than a long-continued limited flow; just what gain, I do not know.—MRS. J. N. HEATER.

1. I prefer light foundation (or thin), not extra thin. 2. I do not know just what per cent. we gain in amount of surplus honey; seasons differ. But there is another factor—another gain. You should not, and probably do not, have but little, if any drone comb in most of your hives, so unless you use queen-including honey-boards, or full sheets of foundation, you would get your sections full of drone-brood.—JAMES HEDDON.

1. Thin foundation is specially made for use in the sections—no heavy comb-foundation should ever be used under any circumstances, or with any pretext, in comb-honey. Such would damage the market, destroy confidence in its purity, and reduce its value. 2. While it doubtless pays to use full sheets of foundation in sections, the percentage would be hard to tell.—THE EDITOR.

THE GRIPPE.

EUGENE SECOR.

I don't feel well. I cannot sleep.
The chills along my backbone creep.
I'm tired and nervous. I go home
And call the doctor, who, when come,
Says, "Grippe."

My wife was parched with fever's fire.
For days her temperature went higher.
In dreams she saw the microbes play,
Because she heard the doctor say
"La Grippe."

My neighbor just across the way
Ate too much cabbage, so they say.
His pains abdominal were great,
The doctor said, "'Tis sure as fate,"
"The Grippe."

A teacher in the public school
Forgot a most important rule—
"Dry feet for health in Winter time"—
Result, a cold, but still they chime
"La Grippe."

Bacteria are in the air.
"'Tis said they gambol everywhere,
And as they come from foreign shores,
We take them in—no one ignores
La Grippe.

The lungs, the liver and the heart
No more invite the healer's art.
Dyspeptic cramps, the ague, gout
And rheumatism, are all ruled out
By Grippe.

O, give us back the good old days,
The good old names, the good old ways,
When aches and pains, no matter what,
Were called their proper names, and not
The Grippe.

Ye microscopic sinners go
Where ye belong, that is below;
Haunt us no more forever, please,
Thou Russian, Frenchified disease,
La Grippe.

Forest City, Iowa.

Get a Binder, and always have your BEE JOURNALS ready for reference. We will mail you one for 50 cents.

Topics of Interest.

Apiarian Exhibits at Fairs.

GEO. F. ROBBINS.

At the Illinois State Convention a committee was appointed to draft a code of rules and standards of judgment to govern exhibitors in making exhibits, and judges in awarding the premiums on bees, honey, etc., exhibited at fairs.

As a member of that committee I have prepared the following rules:

Comb-Honey.

RULE 1.—Comb-honey should be marked on a scale of 100, as follows:

Quantity	40
Quality	40
Style of display	20

RULE 2.—Points of quality should be:

Purity	5
Clearness of capping	10
Straightness of comb	5
Completeness of filling	5
Completeness of capping	5
Uniformity	5
Style of package	5

REMARKS.—1. By variety is meant different kinds. Variety with regard to the sources from which the honey is gathered adds interest to an exhibit.

2. By clearness of capping, is meant freedom from travel-stain, and a water-soaked appearance. This is a most important point. There is no better test of the quality of comb-honey than the appearance of the cappings. It has been claimed that body and flavor should be considered; but for obvious reasons this is not easy to do at a Fair, and it is quite unnecessary. If honey is taken off at the proper time, and cared for as it should be, so as to preserve its original clear color, body and flavor will take care of themselves, for excellence in the last two always accompanies excellence in the first. Clover and basswood honey should be white, heart's-ease of a duller hue, and Spanish-needle a bright yellow.

3. By uniformity is meant closeness of resemblance in the sections composing the exhibit.

4. By style of package is meant quality of the sections, freedom from propolis, etc. Under this head may also be considered size of the section. The 4¼x4¼, being the standard, should take the preference over all others.

the highest in style of display; and every thing that may add to the tastiness and attractiveness of an exhibit should be considered.

6. Honey-dew, or any mixture of the same, should be severely ruled out.

Extracted-Honey.

Rule 1.—Extracted-honey should be marked on a scale of 100, as follows:

Quantity	40
Quality	45
Style of display	15

Rule 2.—The points of quality should be:

Variety	10
Clearness of color	5
Body	5
Flavor	5
Style of package	10
Variety of package	5
Finish	5

Remarks.—1. Light clover honey pouring out of a vessel is white. Spanish-needle is the color of straw. Dark clover honey is not of that hue.

2. Style of package is rated a little high, not only because in that consists the principal beauty of an exhibit of extracted-honey, but it also involves the best package for marketing. We want to show honey in the most attractive form for the retail trade, and that in this case means the most attractive style for exhibition. Glass packages should be given the preference over tin; flint glass over green; and smaller vessels over larger, provided the latter run over one or two pounds.

3. By variety of package, is meant chiefly different sizes, but cans or kegs (not too large) for wholesaling, and small pails for retailing may be considered. In the latter case pails painted in assorted colors, and lettered "Pure Honey," should be given the preference.

4. By finish is meant capping, labeling, etc.

5. Less depends upon the manner of arranging an exhibit of extracted than of comb-honey, and for that reason, as well as to give a higher number of points to style of package, a smaller score is allowed for style of display.

Samples of Comb and Extracted-Honey.

Rule 1.—Single crates of comb-honey entered as such for separate premiums, should be judged by substantially the same rules for an exhibit of comb-honey; and samples of extracted by those governing exhibits of extracted-honey.

5. Honey arranged in a show-case, so as to show every section, should score

Rule 2.—Samples of comb or extracted-honey, as above, may be considered as part of the general display in their respective departments.

Granulated Honey.

Rule 1.—Candied or granulated honey should be judged by the rules for extracted, except as below.

Rule 2.—The points of quality should be:

Variety	10
Fineness of grain	10
Flavor	5
Style of package	10
Variety of package	10
Finish	5

Rule 3.—An exhibit of granulated honey should not be entered or considered as a part of a display of extracted-honey.

Nuclei of Bees.

Rule 1.—Bees in observation hives should be marked on a scale of 100 as follows:

Color and markings	40
Quantity of bees	10
Brood	10
Queen	10
Style of comb	10
Style of hive	20

Remarks—1. The markings of Italian bees should be uniformly three yellow bands plainly visible, and such should stand before four, five, or promiscuous banded bees; and the leather-colored before the golden or light yellow. The reason for the above is that the prevailing verdict is in favor of the darker colored Italians as a "bee for business."

2. The markings of other races should be those claimed for those races or strains in their purity.

3. The largest quantity of bees in a hive, provided there are not too many to see the comb to advantage, should score the highest.

4. The queen is sometimes omitted from a nucleus of bees on exhibition, hence the presence of one should score ten.

5. The largest quantity of brood in all stages, or nearest to that, should score the highest in that respect.

5. The straightest, smoothest, most complete comb, with the most sealed honey consistent with the most brood, should score the highest.

7. The nicest hive, and that one which shows the bees, etc., to best advantage should score the highest.

Queen Bees.

RULE.—Queens in cages should be marked on a scale of 100, as follows :

Quantity	40
Quality and variety	30
Style of caging and display	30

REMARKS.—1. The best in quality, consistent with variety, should score the highest. A preponderance of Italian queens should overweigh a preponderance of black ones, or perhaps of any other race or strain, but sample queens of any or all varieties should be duly considered. Under the head of quality should also be considered the attendant bees. There should be about 10 or 12 with each queen.

2. Neatness and finish of cages should receive due consideration, but the principal point in style is to make and arrange the cages so as to exhibit the inmates to the best advantage.

Beeswax.

RULE.—Beeswax should be marked on a scale of 100, as follows :

Quantity	40
Quality	40
Style of display	20

REMARKS.—1. Prime, clear yellow specimens should score the highest, and the lighter colored should come next in order.

2. By style, is meant chiefly the forms in which the wax is molded, or put for exhibition. Thin cakes, or small pieces, are more desirable in trade than larger ones. Some attention may be given to novelty and variety.

Apiarian Implements and Devices.

RULE.—An exhibit of minor apiarian implements and devices should consist of such as the following, with the accompanying scale of points for each :

Smoker	10
Honey knife	10
Foundation fastener	10
Bee-escape and board	10
Veil	10
Swarming or hiving device	10
Feeder, large	10
Feeder, small	5
Queen-cage	5
Queen and drone-trap	5
Foundation roller	5
Wire embedder	5
Sample of sections	5

REMARKS.—1. The following with the accompanying scale of points may be added :

Super and furniture	10
Shipping case	5
Honey-board	5
Wired frame with foundation	5
Cage for shipping bees	5

2. The following may be added if not otherwise provided for :

Hive and furniture	10
Brood foundation	5
Surplus foundation	5

3. Some attention should be paid to style, both of individual articles and the display, but the principal points to be considered in this department are utility and value.

General Rule for Scoring.

In all departments, and under each several head, the best or leading specimen or exhibit should be taken as a basis, and scored the highest allowed to such specimen or exhibit ; all others to be marked in proportion.

REMARK.—Specimens of equal grade should be scored equally. It is not likely that any two exhibits will rank equally on all points, or in the aggregate.

Mechanicsburg, Ills.

Combining Poultry with Bee-Keeping.

C. F. LANG.

Sometimes it is asked what to combine with bee-keeping. For myself I would say poultry. I have ten varieties of pure-bred poultry, and last year sold over $150 worth of eggs and fowls, and at the last poultry show held at La Crosse, Wis., I took $35 in cash premiums, besides lots of merchandise.

I advise every one to kill his scrubs, and get a setting of eggs for a start, and raise some pure-bred poultry, and he will never regret it. Such lay more eggs than common stock, and do not cost any more for feed. If anybody wants to make a business of it, there is money in it.

I have not secured a pound of honey in three years. I had to feed the bees in June, 1891, and the balance of the season they gathered just enough to carry them through the Winter.

In the Spring of 1891 they had little stores left, so I commenced to feed them sugar syrup and honey that I bought. I fed them quite liberally, and they commenced brood-rearing quite fast.

Later on, the weather was windy and cold, and the bees were not strong enough to cover the brood, consequently it was chilled. When the weather moderated, the bees always hung out, and did not work much, so I examined them with another bee-keeper, and we concluded that they had foul-brood. I decided to send away a sample of comb, and I was informed that it was not foul-brood—only chilled brood—and that it would be all right when the bees had it cleared out. But they worked so slowly at it, and became weaker, so I filled another hive with foundation, and brushed the bees into it, and commenced feeding again. They built up and stored enough to keep them through the Winter, and are now quiet. I think I will get them through the Winter all right. There were 3 colonies altogether. I bought 7 more colonies last Fall, and will try again.

La Crosse, Wis., Feb. 8, 1892.

Italian Bees vs. Black Bees.

W. H. LAWS.

Is Mr. Ellingwood (page 192) lauding the good qualities of the black bee because he *believes* in their superiority over the Italian race? or is he doing so just to be odd? In comparing the merits of the Italian bee with those of her darker cousins, surely he has not given them a fair trial, and is too hasty in his conclusions.

Mr. E. says he has "had six years' experience with bees," but he does not say that he has handled Italians each of these few years, and I should think a few years' test in one locality is not conclusive.

Until within the past two years I too have kept a few colonies of blacks to test as to their relative good qualities. Occasionally there would be a colony with an extra-prolific queen that would outstrip even some of the Italians, but as a rule I have found them decidedly inferior, as a race.

The third year of my bee-keeping I had 9 colonies of blacks and 25 of Italians; from the latter I secured 1,100 pounds of surplus honey, and from the blacks "nary a bit;" and the Italians were in better condition for Winter. Those 9 colonies each received an Italian queen in the Fall.

It is said that "in the multitude of counselors there is safety," and have we not for the past 20 years had a multitude of witnesses, and an overwhelming testimony of the thousands of bee-keepers all over our land, who are loud in their praises of the excellence of the Italian race, that for hardiness, gentleness, and general "get up and get" qualities, the Italians leave the blacks far behind in the race for favor with the bee-keeping world? and that wherever introduced, do they not find an acceptable home?

Now, I would ask Mr. E., does he think we have all these long years been living in delusion? and is it possible that men who count their colonies by the hundreds, and producing honey by the carload, are yet living in delusion as to the better race of the two under discussion—and the two with which we are most familiar? We are not blind to some of the redeeming qualities of the black bee, nor do we say that they are not a valuable race of bees, but we do say they are the less valuable of the two, and their only points of excellence are minor points.

In conclusion, let me ask Mr. Ellingwood to show us a man who has produced, in one season (or two), a carload of honey with black bees alone. I do not say that it cannot be done, but I do contend that where a man is energetic enough to produce honey by the carload, he has long since made friends with the Italian bee, and brought her to the task of producing it.

Lavaca, Ark., Feb. 6, 1892.

Ownership of Swarms of Bees.

EUGENE SECOR.

A peculiar question of title arose in Rhode Island a few years ago, and was decided by the Supreme Court of that State, although the decision has but recently been reported. The property in dispute was a colony of bees, and the Court held that a person who placed an empty bee-hive in a tree upon land belonging to another, without license from the owner, did not thereby acquire any title in bees that swarmed in said hive, or to honey placed by them therein, which he could assert against a third person who went upon the land and helped himself to the contents of the hive. The following extracts from the "opinion" state the facts and the ground of the Court's ruling:

In May, 1881, the plaintiff placed a small pine box, called a "bee-hive," in the crotch of a tree in the woods on the land of Samuel Green, in the town of Hopkinton. It remained in that position until about Sept. 1, 1883, when the defendant went upon the premises and took and carried away the hive, together with a swarm of bees that were then in it, also the honey and honey-comb, and appropriated the same to his own use. The plaintiff had visited the hive about twice a year while it remained in its position, for the purpose of ascertaining whether any bees were in it, or had been. He had found none.

The plaintiff never had any express permission or license from the owner of the land to place or keep his hive in said tree. The defendant never had any express permission or license from the owner of the land to come upon it and take and carry away said property. Said hive was at some distance from any house, and no person knew where said bees came from into said hive, although a number of people kept bees in said town.

There was evidence that for several years signs had been posted up by said Green on his premises forbidding all persons from trespassing thereon, and that one of said signs was within about 20 rods of said hive; but the plaintiff testified that he never saw any of them, and that he never had any notice to keep off said premises.

The defendant split open said hive, took out its contents, and then nailed it together again and replaced it in said tree, in as good condition as it was before he took it away.

The defendant testified that he knew the owner of said land had forbidden all persons from trespassing thereon, but that said owner had told him that he did not put up said notice to keep off his neighbors, and had given him permission to go upon said land.

Demand was made upon defendant in due form before the commencement of suit. After the suit was commenced, the defendant turned over to said Green what then remained in his hands of said bees and honey-comb. The value of the property taken was variously estimated at from $2.50 to $10.

Upon said facts the Court ruled that the plaintiff was not entitled to recover, and rendered judgment for the defendant for his costs, to which ruling the plaintiff duly excepted.

The only question, therefore, is whether said ruling was correct. The plaintiff claims that he hived the bees, and that he thereby acquired at least a qualified property in them, notwithstanding they were upon the land of another, which was sufficient to enable him to maintain this action. We do not think the claim can be substantiated.

The action is trover, and, in order to recover, the plaintiff must prove title, some title, in himself, coupled with possession or the right of immediate possession. We do not think he has proved either.

Bees are *ferœ naturœ*, and the only ownership in them until reclaimed and hived is *ratione soli*. This qualified ownership, however, although exceedingly precarious, and of uncerthin tenure, cannot be changed or terminated by the act of a mere trespasser, that is to say, the act of reducing a thing *ferœ naturœ* into possession, where title is thereby created, must not be wrongful. And if such an act is effected by one who is at the moment a trespasser, no title to the property is created.—*Farmer and Breeder.*

Wisconson State Convention.

C. A. HATCH.

The President's Address.

BROTHER BEE-KEEPERS:—Allow me to congratulate you on this, our eighth annual reunion, on the continued success of our society, and the steady progress of our industry. While there has been a steady growth in bee-keeping, there has been a marked growth in the quality of the product, and in this let the State society claim what is justly its due. Our Honey Shows, and the discussions and the interchange of ideas which they are sure to provoke, we claim as one of the prime factors in this line, and yet there is room for improvement. Let best quality, put up in best manner, be your motto, and we will hear less about the dullness of the honey market.

In order to make the efforts of our society more effective, it seems to your President that it would bring out a larger show, and be, therefore, broader in scope, if all entries were free, and the necessary funds raised by a larger membership fee. One trial has proven this to be the case.

The Columbian Fair is another matter that calls for our earnest and careful attention. I am in receipt of a letter, through our Secretary, from R. B. Kirkland, of the Wisconsin Fair Commission, which shows that he is willing to co-operate with us in making a creditable show, and let us not be lacking on our part. If we make a show in the Bee and Honey Department, presided over by Dr. Mason, and in the State exhibit too, it will necessitate getting together two shows, but I think Wisconsin bee-men are not lacking in enterprise and patriotism to do even that. It will be part of the business of this meeting to confer with Mr. Kirkland, who is in attendance.

First, to ascertain what articles are wanted for such Show, *i. e.*, if honey, in what shape and how much; bees, if any, and fixtures, if wanted or allowed; also what is to become of the articles at the close of the exhibit; whether they are to be paid for by the State, or to be sold for the benefit of the owners.

We do not presume the premiums offered would be sufficient inducements to owners for the sacrifice of the articles. Allow me to suggest as a starter, to get the ideas of this meeting, that honey ought to be shown in both wholesale and retail packages, comb and extracted, and that only implements manufactured in the State be shown; bees and wax would, of course, be legitimate articles for entry.

It seems to me that our society has reached the point in which some means of communication between the members, and interchange of ideas, would be advantageous to us as bee-keepers, that is, if some paper is willing to be the mouthpiece of this Association. The Wisconsin *Farmer* has kindly devoted part of its pages to our use, and is ably edited by our genial Secretary, Dr. Vance. Would it not, therefore, be well for us to take some official recognition of this fact? How would it do to make a year's subscription part of the membership fee? Could we not by taking, say 30 or 50 subscribers at once, get reduced rates enough so we could all get it and be a means of increasing our membership also?

New things are constantly coming up in bee-keeping that call for a trial, and either acceptance or rejection. How would it do for our society to start an experiment department? Our brethren of the Horticultural Society have done so, at no small expense. We could do this with an economical outlay. Suppose, for example, queen-cell protectors are the articles to be tried, and 20 of our members concluded to try them at an average cost of $1 each, there you have an aggregate of $20, which if done by, say three members of the society, might have been reported at our annual "round-up," and become common property, perhaps at an expense of 10 cents for each of the 20 members, or even less, for I presume that manufacturers of worthy articles would donate them if the case was rightly presented to them.

And if we had an official paper as before suggested, progress during the experiments could be reported through its columns, and all put in possession of the advantages or disadvantages, if there be any, and saved from the expense and bother of the experiment. Can you not see the economy of it? Economy, however, is not always in saving, but rather in making wise use of the means at our command. If we let all these advantages of association and co-operation go unimproved, we are not living up to our opportunities and privileges.

There seems to be a chance for our society to do a good work in the matter of regulating freight rates on honey. As it now stands, there is an unjust discrimination against honey—a can of honey boxed has to pay second-class freight, while a jacketed can of molasses goes as fourth-class. Molasses in barrels and kegs goes for fourth-class, and honey in the same packages must pay third-class.

We can but think that the railroad officials will give us justice if the matter is presented to them in the right spirit, and in the proper manner. Most of our extracted-honey goes to market in barrels and kegs, after it has granulated, and in this condition there is but little risk in the handling, and why should we not therefore get as low rates as on molasses that never is in condition not to leak, or run away, if the barrel bursts?

There seems to be good reason for our paying first-class rates on comb-honey, for we have insisted on putting our crop in small boxes—12 to 24 pounds—and then we are continually cautioning the freight handlers about carefully setting boxes down.

Did you ever stop to consider how much work this costs them to carry a 12-pound box, two or three rods, and set it down carefully, when they might as well take 75 pounds? Are we properly considering the value of their time? Would it not be more to our interest, if we must have the small shipping crates, to put them in a larger box or crate, well packed in clean straw, so that they would not be injured if handled any way? And then ask the railroads to give us lower classifications? We have always found the railroad managers courteous and willing to rectify any grievance where one really existed.

Ithaca, Wis.

Bee-Keeping in California.

W. A. PRYAL.

An error (apparently typographical) on page 107 makes me state that the top of the spire of the Catholic Cathedral in Sacramento, Calif., is "234 feet higher than the top of the dome of the Capitol."

[A semicolon after word "feet" will make all plain and truthful.—Ed.]

For four or five years past my bees have been in charge of inexperienced persons. Last year I spent only one day among them. This year I shall give them a good deal of attention, as I need more out-door exercise than I had been getting for some years. Bees and fruit, with perhaps occasional attention to a city pursuit, will claim my time.

I have now 50 colonies—there were about 60 before Christmas, but with weak colonies and robbing, 8 or 10 succumbed to the inevitable.

It is always "the survival of the fittest" in a California bee-yard. Still, I have made it a rule to protect hives as much as possible against robbers by stopping up cracks and contracting the entrances.

As hives were short last Spring, some of the late swarms were put in boxes; some being apple, and other fruit boxes. Then there were 9 box-hives full of bees and honey, that were given to us by a friend a mile away. He did not care to keep them longer, as he lived on a well-traveled road, and was afraid that the bees would sting horses and persons who passed by.

Already I have commenced to transfer. The weather is fine. We have had our usual complement of rain, and the days are bright and sunny. There is a large Australian gum, or eucalyptus, forest a few hundred yards south of the apiary, is where the bees find ample flowers to work upon. Then the California laurel, willow and other flowers now in bloom furnish nectar.

We have to transfer now, as the hives will have too much brood later to make it easy to perform that, at any time, pleasant operation. I have found in hives I tore to pieces to-day (Jan. 27) three or four combs well filled with brood—young bees coming out in goodly numbers.

In transferring I find that the box-hives have a large surplus of honey—far more than the bees need. After giving the new hives all the honey the bees will require, I will strain what is left as it is dark and thick. I think I shall sell it to tobacco manufacturers.

Then there is a lot of old comb—some being good. The latter I shall save to use in frames, as I will run the apiary for extracted-honey. I have disposed of most of the wax I have rendered this month to painters in Oakland, at a fair price. I can sell all I can produce. It is of a beautiful yellow color; the best I ever saw.

This reminds me that I have been thinking of starting one or two out-apiaries in an adjoining county, one of which will be principally devoted to wax production. If I get enough wax I will set up a factory to have it made into wax candles for use in churches and educational institutions. The Catholic clergy find it no easy task to always find pure wax candles for use in their churches. True, all the candles used in the church are not required to be of pure beeswax, but there are times when they must be; and, then, at the masses more or less genuine beeswax candles must be burned.

As I have the acquaintance of a large number of the ministers of the church named, I may be able, should I determine to make candle-making a side issue, work up quite a trade, and get more for the wax in that way then if it were sold in bulk at wholesale rates.

North Temescal, Calif.

Preparing Bees for Winter.

JOHN D. A. FISHER.

We have had several very pleasant days when the bees had a nice flight. To-day, at noon, I concluded to examine my bees, and see in what condition they were. I found all but one hive in splendid condition, with plenty of stores, and well clustered. My queens have a nice lot of brood started, judging by the colony I examined closely, whose queen was lively.

In November, when preparing my bees for Winter, I take off the surplus arrangements, and if the bees have plenty of stores I take newspapers and cover over the frames, taking care that the paper is at least double in thickness, and projects out over the sides and ends about 2 inches. Then I put the cover on, and the bees are ready for Winter just where the hives were in the Summer. The 2 inches of paper that projects out over the hive turns down in a few days, shedding the rain and keeping out the wind.

My reason for putting the paper on is, that the paper closes up the cracks between the hive and cover, thus retaining all the heat made by the bees. Another reason is, I can examine the bees in Winter without molesting or disturbing the cluster, when there is a fine, sunny day, so that the bees can fly. If I want to know how the bees are doing inside the hive, all I have to do is to raise the cover, pull up the paper, and at a glance I can see how the bees are clustered, also what amount of stores they have, with scarcely disturbing a single bee. In the Spring, I take the paper off, and put on the supers.

Woodside, N. C., Jan. 29, 1892.

That Convention in Sacramento, Calif.

RAMBLER.

When the Bee Journal for Jan. 22 arrived, I was quite interested, as well as a little amused, over Mr. Pryal's description, on page 106, of his forlorn search for a bee-keepers' convention in Sacramento.

In the first place, he made a great mistake in not inquiring for the "Rambler," who was at that time making Sacramento his home, and was on the streets of that city that very Dec. 16; and if Messrs. Root or Cook had appeared, he would have been there to meet them.

When the gentlemen mentioned first projected their tour to California, conventions were mentioned for Reno, Nevada, and for Colfax and Sacramento, Calif., all three of which did not materialize.

When we learned that a convention was wanted in Sacramento, we began to "dust around" and correspond with bee-keepers; and all the names we could secure within a hundred miles of Sacramento were barely a baker's dozen (13); even some of these with whom we corresponded gave no encouragement for a convention.

Mr. Watkins, of Eldorado, said the effort had been made a few years before to organize an association, but not a bee-keeper came to the appointed place, except himself. Therefore, taking the limited number of bee-keepers at command, and the lack of interest, we wrote the facts to Mr. Root, while he was in Salt Lake, and as a consequence there was only a convention of two forlorn bee-keepers plodding around in the Sacrameto mud, unless some one else turns up as a convention candidate.

When bee-keepers in the East read about California bee-keeping, they imagine that apiaries are distributed all over the State; but when they arrive here they find the great majority of them are in the southern counties.

Near Sacramento is where the first colonies of bees from the East began business. The honey resources of this valley are now good, but there are few large apiaries. There is one 12 miles south of Sacramento, of 200 colonies, owned by Mr. Warner. We learned of another one 12 miles north, having about the same number; also Mr. Lewis, living in the city, has 100 colonies.

The reason of the movement to the South is, the greater range for sage honey, and of better quality. There is no sage in the Sacramento valley, and though the honey is of good quality, it is not so white as that obtained in other portions of the State.

We trust that the foregoing explanation will set our friend, Mr. Pryal, right. Next time he wishes to find a convention, he should look first for "Rambler." If we had only met, what a nice convention we would have had!

Riverside, Calif., Jan. 25, 1892.

Locating a Home before Swarming.

CHARLES E. FALKNER.

About June 1, 1890, a neighbor of mine—Taylor Phillips—got a bee-hive of me, and wanted me to cut a bee-tree for him, and transfer the bees in the hive, which I did.

After the work was done, he called my attention to another tree standing near by, where he said he had found another bee-tree. The sun being nearly down, and as we were looking towards the west, we could see the bees very plainly, though they flew very weak. I thought there was no swarm in the tree—that the bees were only cleaning out a home. I could see them as they flew from the tree, drop particles of rotten wood. He laughed, and said: "Oh, there is a swarm of bees in that tree. They flew quite strong about noon to-day. You come over to-morrow afternoon about 4 o'clock." I agreed to come.

The following day, at the time appointed, I was on hand, and Mr. Phillips said I would have to wait until a Mrs. Magner came. He said: "Not more than two hours ago a swarm of bees passed over our heads, and went into this same tree."

"Well," said I, "so much the better. Now you are sure of a swarm of bees, and before you were not."

"Yes," he replied, and continued: "You see, Mrs. Magner followed them, and saw them go into the tree."

By this time Mrs. Magner and her husband came, and all wanted me to say who I thought had the best right to the bees; and that they would leave it to me to decide. I told them that I thought that if old comb was found in the tree, the bees ought to belong to the first finder; and if no comb was found, they belonged to Mrs. Magner. To this they agreed.

The tree was cut, and not a particle of comb was found in the tree. Now, what were these bees doing there the day before, if they were not cleaning out a home?

I know it to be a fact that bees often do locate a home, clean it out, and glue it up before swarming. Such bees seldom cluster, but go direct to the new home. Of course, this does not agree with Mr. Demaree's statements on page 814, but I have too many similar proofs that bees do (will not say always, but often) select a home before swarming.

Quite a number of bee-keepers have left there bees on the summer stands without any protection at all; but as the cold wave strikes us they may wish pretty seriously that they had given them protectien of some kind. With the mercury 20° to 25° below zero, I find it is always best to prepare the bees for such weather, and then if they fail to winter, we can feel that we did our part.

Pioneer, O.

Bees Sending Out Scouts.

S. B. SMITH.

On page 585 (1891), G. W. Demaree uses these words: "Bees never, never send out scouts, as some superstitious old fogies blindly assert and believe." Now, Mr. Demaree may call me an "old fogy" if he wishes to do so, but I will relate an incident that came under my observation last Summer, which is in support of Mr. Poindexter's views, as given on page 658 (1891).

Last Spring I built a small house or shed to keep my bees in during the Summer. I had 3 colonies of bees. Soon after I placed them on the summer stands, there came a very severe wind, storm which blew over the bee-house and the bees, badly breaking the comb. As it was very cold, many of the bees died.

A long cold spell followed, and the two weak colonies succumbed to the cold, but one very strong colony barely lived through the Summer until July. I examined them every week, and found that they stored some honey, and increased in bees, but the increase was very small. One day I was watching them, as usual, when I noticed an unusual number of bees around the entrance of the hive. At first I thought my bees had hatched out a new lot of workers, and were gaining in strength, but I soon discovered that they were strange bees, and I supposed they were robbers, but there are no bees kept within miles of my place.

While I was watching them, and considering what to do, a very large swarm came and settled on the hive, went in and took possession, and in less than an hour were at work as busy as though they had been there all Summer.

This was about the middle of July. They filled the hive about two-thirds full of comb, which is well filled with honey, and I have them in the cellar now.

About ten days after this incident occurred, I found another swarm clustered on a plum-tree near my house, but it was so small, and as it was late in the season, and a poor year for honey, they never amounted to anything.

The season of 1891 was a very poor one for honey in this locality. There is but little white clover or basswood, and the bees did not work on the golden-rod last Fall.

Keeville, Minn.

Preparing Bees to Move a Long Distance.

C. C. PARSONS.

I have been studying modern apiculture for several years, and during that time I have had much valuable gratuitous instruction from the many bee-keepers who have written for the bee-papers, to all of whom I return thanks. I would like to repay by giving others the benefit of my observations, though there has been so much said that I cannot hope to say much that has not been already written; but if I can only give one new idea, that will help some fellow-bee-keeper over some of the rough places, I will have succeeded.

I have had some experience in moving bees, and will describe it as follows:

I use the 10-frame Simplicity-Langstroth hive, with the common hanging frames wired with three horizontal No. 30 wires, and fixed bottom-board, but when I moved my bees it was a necessity, and I liked them so much that I have had them ever since.

For spacing the frames at the bottom, I use one inch wire staples, such as are used in putting up wire fence, made of uniform width, and driven into the bottom-board across the center of the hive, turning those on the outside of the frames diagonally, so as to make the required space. I have no bee-space on top of the frames, but make the frames flush with the top of the hive. For a quilt over the frames, I use heavy brown domestic.

To pack bees for shipment, I take two pieces of board, 8x20 inches, ½ inch thick; a piece of wire cloth, a tack hammer, some carpet tacks, and some 1½ inch wire nails.

When the bees are all in the hive, tack the wire-cloth over the entrance, take off the hive-cover, and nail the two boards down on top of the hve. Hold! how are you going to ventilate? Well, we are just beginning the work, and have not reached ventilation yet. I want the boards to fit down on the frames at both ends and in the middle.

Our bees, packed as above, were put upon wagons, hauled six miles, and put into a box car, with our household goods. The hives were placed upon the floor lengthwise of the car, one tier upon the other, without any bracing or fastening down.

On Nov. 18, 1890, we started on our journey of 800 miles, and arrived here six days later with the bees (24 colonies) all right, except two broken combs—they were not wired. The temperature in the car was kept most of the time near 50°, Fahr. The bees came out all right in the Spring, and did well last year.

Bessemer, Ala., Feb. 15, 1892.

* * *

Placing Hives in the Apiary, Etc.

I. E. MYERS.

I drive four stakes in the ground, making a square of 30x36 inches, and 18 inches high, to which I nail two pieces of board 4 feet long, the 36-inch way. Next I lay a spirit-level on the edge of the boards, and drive down the post so that the cross board are in perfect level from one end to the other, and across the 30-inch way from one board to the other. On this board stand I place the bottom-boards of two hives, on one of which I put a colony of bees, and on the other an empty hive.

I clip the wings of my queens in the Spring, so when they swarm, I cage the queen and exchange the hive from one bottom-board to the other, while the bees are in the air, and place the cage on the bottom-board in front of the empty hive, which is now on the bottom-board that the bees are acquainted with; and finding their queen there, the bees go in readily.

NUMBERING HIVES.

My experience has led me to number the queen and not the colony. In this way I follow her wherever she swarms in the apiary, without keeping note of it in the register. I have a board ¼x3x6 inches, which is hung by a nail driven on the back of the hive outside, with the number of the queen on one side of the small board, and on the other side I keep the record of the facts as they take place.

For instance: Queen No. 12. Progeny of No. 9. July 20, 1890. Black (pure). Wing clipped April 20. Very weak colony. May 13, good layer. June 18, good colony, working in the super. July 17 took off 18 pounds of honey. Aug. 11, took off 56 pounds of honey. Nov. 17, placed in winter quarters, weighing 60 pounds.

With this record, I am able at leisure to go around with my recording book, write in it any one of these facts that I want to refer to later on, and to keep my apiary account for profit and loss. This board follows the queen from one hive to another.

DOUBLE BOTTOM-BOARDS FOR HIVES.

I wish to say something about my twin bottom-boards. My hives are made after the Langstroth pattern, except that the entrance is in the bottom-board, and not cut out of the side of the body. The bottom is half inch, raised above the alighting-board. I cut out of this half inch, 10 inches along the edge next to the alighting-board, and back 1¼ inches from the alighting-board, so as to give room for the bees to pass under the lower edge of the body of the hive. This prevents the wind from blowing rainwater in under the broodnest. All the body parts of my hives can be used for two-story or single-story, as there is no bee-entrance cut out of them.

I have a bottom-board that I call my "twin," or "double-hive board." This board is 32x62 in size, with a 12-inch alighting-board. On this I place two hives, one empty, and one with a colony of bees in it. The passage from one hive to the other is cut out of the bottom-board deep enough to place a piece of perforated zinc honey-board on edge, and re-covered with tin even with the border of the honey-board, so as to keep water, dew or rain out of this passage.

The suggestion in trying this was prompted by the fact that bees would fill sections more readily if they were in the brood-nest, providing the queen could be kept from laying in them. This I tried in 1890, when with a prime swarm I tested it, by keeping two to four brood-frames in the empty hive along with 8-section wide frames. I secured 83 pounds of honey from that colony that season. In the season of 1891 I placed an Italian hybrid colony in this double arrangement, and had to cut out from 6 to 30 queen-cells once a week, and did not have an ounce of honey stored; besides the bees were rendered so cross that they made it necessary for me to wear a veil to work in the apiary.

Next season I intend to experiment with 6 colonies in this way—2 Carniolans, 2 Italians, and 2 blacks. I will place on one of each kind a surplus case filled with sections, to see which they will enter the first, those in the empty hive or the super.

In 1890 I was troubled with skunks in my apiary, and at the suggestion of some writer in the BEE JOURNAL, I placed the hives higher from the ground. This proved to be a remedy, as not one colony was disturbed by skunks last Summer.

Grant, Minn., Feb. 9, 1892.

Prolific Colony of Bees.

Mr. Robert McEwen says that he had a colony of Italian bees that cast a swarm on June 10, a second swarm on June 20, and a third on June 22. The third swarm left for parts unknown; the first and second swarms each swarmed twice, and the old colony cast two swarms in July. Besides, Mr. McEwen says he got 40 pounds of section honey from the old hive.—Renfrew, Scotland, *Journal*.

CONVENTION DIRECTORY.

Time and place of meeting.

1892.
Mar. 1.—Weld County, at Greeley, Colo.
H. E. English, Sec., Greeley, Colo.

Mar. 1.—Wabash Valley, at Vincennes, Ind.
Frank Vawter, Sec., Vincennes, Ind.

Apr. 6, 7.—Texas State, at Greenville, Tex.
A. H. Jones, Sec., Golden, Tex.

Apr. 7.—Utah, at Salt Lake City, Utah.
John C. Swaner, Sec., Salt Lake City, Utah.

Apr. 21.—Colorado State, at Golden, Colo.
H. Knight, Sec., Littleton, Colo.

May 5.—Susquehanna Co., at Brooklyn, Pa.
H. M. Seeley, Sec., Harford, Pa.

May 28.—Haldimand, at Nelles' Corners, Ont.
E. C. Campbell, Sec. Cayuga, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Eugene Secor..Forest City, Iowa.
SECRETARY—W. Z. Hutchinson....Flint, Mich.

National Bee-Keepers' Union.

PRESIDENT—James Heddon ..Dowagiac, Mich.
SEC'Y AND MANAGER—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Carniolan Bees.

I glean many valuable hints and helps from the BEE JOURNAL. Last Spring I bought a colony of Carniolan bees. They arrived in good condition. Last Fall I put away 10 colonies, and will report their condition in the Spring.

W. C. GOODRICH.

Lehigh, Iowa, Feb. 16, 1892.

My Experience with Bees.

In May, 1890, I started bee-keeping with 2 colonies of blacks, and purchased an Italian queen in June of that year. That Fall I placed 8 colonies in the cellar, and took out *one* alive in the Spring. "A little knowledge is a dangerous thing!" I had read too much, and knew too little. The Fall of 1890 I packed 4 colonies on the summer stands in chaff hives. The Winter of 1890-91 was extremely cold, with some 5 feet of snow on a level. December, 1890, was the severest month experienced in this section for many years, and my bees did not fly for upwards of four months. For upwards of three months the hives were completely covered with snow. The bees came through in splendid condition, gave me 500 pounds of white honey—one-half comb; increased to 12 colonies, and went into winter quarters on the summer stands in good condition. The present Winter has been very mild, and bees flew on Dec. 16—a month later than last year. I have banked snow over the hives, but I am afraid that the consumption of honey will be greater, and the general condition not so good as last year. They have at least four or five weeks yet before them. Bees flew freely on March 13, 1891.

R. W. Farley.

Hull, Quebec, Feb. 11, 1892.

Drones in February.

I wish to know if other bee-keepers have had similar experience to mine this Winter. We have had cold weather—part of the time 15° below zero—and good sleighing until Jan. 27, when it moderated, and on Feb. 1, my golden Italians came out in force with lots of drones. Is it usual for bees to have drones at this time of the year? or is it a peculiarity of my bees?

R. D. Davis.

Commercial Point, O.

[You do not say whether the drones were young or old. It often occurs, in case of queenlessness, that drones are tolerated all Winter. It was two months too early for young drones to be out for a "frolic" in this locality. They may be a little earlier in Central Ohio, but not enough to make that difference.—Ed.]

An Old Bee-Keeper.

I am now about 72 years old, and awfully lame. I have 16 colonies of bees. Last Summer I did not get a bit of honey, but I must do the best I can, as I am a doctor, and most of the time I am in the sick room. I have 2 acres of an orchard, but my neighbors keep lots of hens that destroy everything I sow for the bees.

Dr. P. W. Schmidt.

Ottawa Station, Mich., Feb. 6, 1892.

Spraying from the Heavens.

I am in receipt of a letter from a friend in New York, stating that it was reported there that I could not sell my honey on account of its being poisoned from the spraying of the fruit-trees while in bloom; that the State authorities had taken action upon it, and Minnesota honey was prohibited from being sold. Whew! What next? My honey has all been sold a long time ago, and it was clover and basswood. What few crab-apples and wild plums we have—the Great Father attends to the spraying of them from the Heavens above.

M. S. Snow.

Osakis, Minn., Feb. 12, 1892.

Bees Wintering on Honey-Dew.

From Nov. 17 to 24, 1891, I put 100 colonies of bees in the cellar under my dwelling, with honey-dew in the hives just as they stored it, except that I fed all the dark honey back that was stored in the sections, and have not yet swept up over one bushel of dead bees.

O. B. Barrows.

Marshalltown, Iowa, Feb. 13, 1892.

Convention Notices.

UTAH.—The Utah Bee-Keepers' Association will hold its annual convention in Salt Lake City, Utah, on April 7, 1899.

John C. Swaner, Sec.
Salt Lake City, Utah.

COLORADO.—The Spring meeting of the Colorado State Bee-Keepers' Association will be held in Golden, Colo., on April 21, 1892.

E. B. Porter, Pres.
H. Knight, Sec., Littleton, Colo.

COLORADO—The second meeting of the Weld County Bee-Keepers' Association will be held in Greeley, Colo., on March 1, 1892, at 10 a.m., on call of the President.

Greeley, Colo. H. E. English, Sec.

TEXAS.—The 14th annual meeting of the Texas State Bee-Keepers' Association will be held at Greenville, Hunt Co., Tex., on Wednesday and Thursday, April 6 and 7, 1892. All interested are invited. A. H. Jones, Sec.

Golden, Wood Co., Tex.

PENNSYLVANIA.—The tenth semi-annual meeting of the Susquehanna Co. Bee-Keepers' Association will be held at Bullard's Hotel in Brooklyn, Pa., on Thursday, May 5, 1892, at 10 a.m. All are cordially invited.

Harford, Pa. H. M. Seeley, Sec.

NEW YORK.—Cortland Union Bee-Keepers' Association will hold their annual meeting in the W. C. T. U. rooms over Chas. Collins' store in Cortland, Tuesday, Feb. 23d, 1892. All interested in bees are earnestly requested to be present. J. H. Kennedy, Pres.

M. H. Fairbanks, Sec., Homer, N. Y.

Wavelets of News.

Honey-Dew for Winter Stores.

Bees in the cellar are wintering only fairly well so far. Many are beginning to show the effects of honey-dew as a poor Winter food. We fear those prophets who have said that it was as good as the best of honey, will have to guess again. Should the Winter prove cold and long, we greatly fear the result.—C. H. DIBBERN, in *Western Plowman*.

Bee Notes from Wisconsin.

A bee's life is not limited by days and weeks, but by its activity.—C. A. Hatch.

I do not want an overflowing colony in the Fall to go into winter quarters.—B. H. Standish.

The longer I live the less I think I know about certain points in bee-keeping.—S. I. Freeborn.

A bee that gets no pollen in the Spring, will readily take flour as a substitute.—J. J. Oschner.

I think there is no necessity to feed pollen in the Spring.—Rev. T. E. Turner.

If the bees are properly wintered they will Spring well.—S. I. Freeborn.

Mr. Daniher's description of his colony in a jug amused those who heard it. Mr. D. knocked the bottom off a large stone jug, fixed combs in it, and put in a colony of bees, which he reports to be in good condition. That is a veritable "prohibition" jug. Mr. D. had a number of Punic bees on exhibition (of course in a defunct state preserved in alcohol). Those who examined them could not discover any marked distinction from the ordinary black bees.—*Wisconsin Farmer*.

Bees in Florida.

I am now in the land of flowers, and abiding at that much talked of place, "Lovely St. Andrews by the sea." This Florida appears to be truly a paradise for bees. There are times, no doubt, when there is a scarcity of nectar, but a prudent owner will always see that they do not starve, as the weather is never very cold, and they can be readily fed.

The honey I have seen is gathered from the tie-tie, is yellow, good body and flavor. I have not seen here, as yet, any comb-honey, as there is but little produced, owing to the lack of transportation facilities; if sent to market, it would have to go by schooner by way of the Gulf, and might be broken in transit, while extracted in barrels would not be damaged.

I am told that extracted-honey of this localtiy never granulates, and if kept for two years, and is always liquid and ready for use. This, if true, is a very great convenience.—MRS. L. HARRISON, in the *O. J. Farmer*.

Which Way Should Hives Face?

It is the general belief, or at least the common practice, to have the entrance toward the south.

While there may be some reasons for this practice, I think any other point as good if not better. A southern entrance is more likely to entice the bees out in the Spring, or late in the Fall when the weather is too cool for bees to fly, and when it would be better that they remain in the hive.

In the heat of Summer, too, a southern entrance is most undesirable. It is more difficult to shade that side when accommodation for flying bees is needed.

An eastern entrance is quite objectionable. It is the point toward the morning sun, and perhaps bees may see the light a little earlier in the morning during the honey season.

I have used a north front with a good deal of satisfaction. It is cool in Summer. The hive is easily shaded. In Summer the morning sun shines first on the north side of the hive. The entrance can be entirely closed on cool days in the Spring, if the north wind blows. I prefer a north entrance to a south.—E. SECOR, in *Farmer and Breeder*

Winter Food for Bees.

Food in Winter is an all-important question. Superior even to natural honey for food is pure cane sugar, which will cause diarrhea less than any other article that can be fed.

In feeding the bees in Winter a great deal depends upon the weather and the locality. Several of our past Winters have been so mild and open that honey could be fed right along, with no danger of causing diarrhea. In warmer countries where the bees can fly around most of the Winter, the same holds true; but in a severe Winter, in a cold northern climate, the odds will be largely in favor of pure cane sugar as food. The price of sugar is now so low that it is the cheapest food to give the bees.—HELEN WARBURTON, in the *Cultivator*.

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" 100 colonies (220 pages)	1 25
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YOU NEED an Apiary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for $1.25; or for 200 colonies for $1.50. *Order one now.*

◆

Supply Dealers desiring to sell our book, "Bees and Honey," should write for terms.

◆

We Club the American Bee Journal and the Illustrated Home Journal, one year for $1.35. Both of these and Gleanings in Bee Culture, for one year, for $2.15.

◆

If You Have any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time.

◆

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

◆

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

◆

When talking about Bees to your friend or neighbor, you will oblige us by commending the BEE JOURNAL to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the Convention Hand-Book, by mail, postpaid. It sells at 50 cents.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club.*
The American Bee Journal	$1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	2 00	1 75
The Apiculturist	1 75	1 65
Canadian Bee Journal	1 75	1 65
American Bee-Keeper	1 50	1 40
The 7 above-named papers	6 00	5 00
and Langstroth Revised (Dadant)	2 40	2 25
Cook's Manual (1887 edition)	2 25	2 00
Quinby's New Bee-Keeping	2 50	2 25
Doolittle on Queen-Rearing	2 00	1 75
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 50	1 40
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 50	1 35
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
Toronto Globe (weekly)	2 00	1 70
History of National Society	1 50	1 25
American Poultry Journal	2 25	1 50
The Lever (Temperance)	2 00	1 75
Orange Judd Farmer	2 00	1 75
Farm, Field and Stockman	2 00	1 75
Prairie Farmer	2 00	1 75
Illustrated Home Journal	1 50	1 35
American Garden	2 50	2 00
Rural New Yorker	3 00	2 25
Nebraska Bee-Keeper	1 50	1 35

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

If You Want to know how Queens are fertilized in upper stories, while an old Queen is laying below—how to *safely introduce* Queens at any time when bees can fly—all about different bees, shipping Queens, forming nuclei, multiplying or uniting colonies, etc.—send us $1.00 for "Doolittle's Queen-Rearing;" 170 pages; bound in cloth and as interesting as a story.

Winter Problem in bee-keeping; by G. R. Pierce, of Iowa, who has had 25 years' experience in bee-keeping, and for the past 5 years has devoted all his time and energies to the pursuit. Price, 50 cents. For sale at this office.

The Convention Hand-Book is very convenient at Bee-Conventions. It contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee-Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with Subjects for Discussion. In addition to this, there are about 50 blank pages, to make notes upon, or to write out questions, as they may come to mind. They are nicely bound in cloth, and are of the right size for the pocket. We will present a copy for one new subscription to the BEE JOURNAL (with $1.00 to pay for the same), or 2 subscribers to the HOME JOURNAL may be sent instead of one for the BEE JOURNAL.

When Writing a letter be sure to sign it. Too often we get letters with the name of the post-office, but no County or State. One such came recently, and we looked into the Postal Guide and found there were places by that name in 13 States. Be sure to stamp your letter, or it may go to the dead letter office, in Washington, D. C.

Supply Dealers should write to us for wholesale terms and cut for Hastings' Perfection Feeders.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line**, for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

WANTED—Bee-keepers to send for my price and samples of Comb-Foundation.
JACOB WOLLERSHEIM, Kaukauna, Wis.
1Atf

WANTED—A situation in an apiary or hive manufactory. I am willing to make myself generally useful. J. W. TEFFT.
5Atf 318 Swan St., Buffalo, N. Y.

WANTED—To exchange Bees, Honey and Supplies for Cash or Tinners' Tools.
J. A. BUCKLEW, Warsaw, Coshocton Co., O.
5Atf

WILL EXCHANGE—P. Rock eggs & fowls. White Holland eggs & toms, Pekin ducks and Toulouse geese eggs, for BEES, improved HIVES, nursery stock, W. Fantail Pigeons, W. Guineas or offers. C. H. Wallace, Homer, Ill.

HONEY AND BEESWAX MARKET.

CHICAGO, Feb. 20.—Fancy white comb selling at 16c.; other grades 10@14c. Extracted slow demand. 6½@7½c. Beeswax, 26c.
S. T. FISH & CO., 189 S. Water St.

NEW YORK, Feb. 20.—Little demand, sufficient supply. We quote: Fancy white 1-lbs., 13@14c.; off grades, 11c.; buckwheat, 9c.—Extracted, California, white clover and basswood, 7@7½c.; Southern, 65@70c. per gallon. Beeswax, very scarce at 28@29c.
HILDRETH BROS. & SEGELKEN,
28-30 West Broadway.

KANSAS CITY, Mo., Feb. 20.—Demand slow, and market well supplied. White comb, 1lb. 14@15c; dark, 9@12c. Extracted — White, 7½c; dark, 5@6c. Beeswax, is in light supply, and demand good, at 23@26c.
CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI, Feb. 20.—Demand is good for extracted at 5@8c. Comb honey is in fair demand at 12@16c. for best white.

Beeswax is in fair demand, at 23@25c for good to choice yellow.
C. F. MUTH & SON,
Cor. Freeman & Central Aves.

NEW YORK, Feb. 20.—Demand for honey is small, with adequate supply. We quote: Fancy 1-lb. clover, 14c.; fair, 10@11c Buckwheat, 8@9c. Fancy 2-lb. clover, 11c.; fair, 9@10c.; buckwheat, 7@8c. Extracted, clover, 7c. lb.; buckwheat, 6c. Beeswax, fair demand, 28@30
CHAS. ISRAEL & BROS., 110 Hudson St.

KANSAS CITY, Mo., Feb. 20.—Demand poor, with large supply of comb. We quote: Comb—1-lb. fancy, 15@16c; dark, 12@13c. Extracted—White, 7@7½c; dark, 5@6c. Beeswax—None in market; light demand.
HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, Feb. 20.—The demand for comb-honey is fair and supply moderate. We quote: Comb, 12@13c; extracted, 7@8c. Beeswax in good supply, and light demand, at 25@26c.
M. H. HUNT, Bell Branch, Mich.

CHICAGO, Feb. 20.—Demand good and supsufficient. We quote: Comb, 14@16c. Extracted, 6@7c. Beeswax, in light supply, and good demand, at 25@27c.
J. A. LAMON, 44-46 S. Water St.

MILWAUKEE, Feb. 20.—Demand fair and supply good, except of the best quality. We quote: Comb—choice, 1-lb., 15@16c; fair, 13@14c; dark, 10@12c. Extracted—white, in barrels or kegs, 7½@8c; dark, 6@6½c. Beeswax, 23@28c.
A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO, Feb. 19.—Demand good, supply small. We quote: Comb, 1-lb., 10@14c. Extracted, 5½@6½c. Beeswax, in light supply and good demand, at 23@25c.
SCHACHT, LEMCKE & STEINER,
16 Drumm Street.

MINNEAPOLIS, Minn., Feb. 20.—Demand is moderate, supply ample, and shipments coming in freely. We quote: White comb, 17@18 cts.; dark, 14@15c. Extracted, 10@10½c.
STEWART & ELLIOTT.

CHICAGO, Feb. 20 .—Demand is now good supply is not heavy. We quote: Comb, best grades, 15@16c. Extracted, 6@8c. Beeswax, 26@27c, R. A. BURNETT, 161 S, Water St.

BOSTON, Feb. 20.—Demand is light, supply ample. We quote: 1-℔. fancy white comb, 14@15c; extracted, 6@7c. Beeswax, none in market.
BLAKE & RIPLEY, 57 Chatham St.

ALBANY, N. Y., Feb. 20.—Demand is slow, supply not liberal, as stock is mostly in. We quote: White comb, 12@15c; buckwheat and mixed, 8@12c. Extracted — Light, 7@7½c; dark, 6@6½c. Beeswax—Supply light, and demand steady, at 28@29c.
H. R. WRIGHT, 326-328 Broadway.

NEW YORK, Feb. 20.—Demand is light, and supply large, except buckwheat comb. We quote: Fancy white comb, 12@14c; buckwheat, 9@11c. Extracted—Clover and basswood in good demand at 6½@7c; buckwheat ind emand at 5@6c. Beeswax in fair demand at 26@28c.
F. I. SAGE & SON, 183 Reade St.

NEW YORK, Feb. 20. — Demand moderate, and supply reduced, with no more glassed 1-℔ nor paper cartons, 1-℔. We quote: Comb, 1-℔, 14@15c. Extracted—Basswood, 7¼@7½c; buckwheat, 5½@6¼; Mangrove, 68@75c per gal. Good demand for dark extracted honey. Beeswax, in fair supply, with small demand, at 26@27c.
F. G. STROHMEYER & CO., 122 Water St.

Calvert's No. 1 Phenol, mentioned in Cheshire's Pamphlet on pages 16 and 17, as a cure for foul-brood, can be procured at this office at 25 cents per ounce, by express.

A Nice Pocket Dictionary will be given as a premium for only **one new** subscriber to this Journal, with $1.00. It is a splendid little Dictionary—just right for the pocket. Price, **25 cents.**

I Know an advertiser, says the *Shoe Recorder*, which took 10 per cent. of last year's profits and invested it in advertising. That is a good idea, and one that pays well.

Money in Cabbage and Celery.—"Blood will tell." Good crops cannot be grown with poor strains of seed.

For 16 years Tillinghast's Puget Sound Cabbage, Cauliflower and Celery Seeds have been gaining in popularity. The most extensive growers all over the Union now consider them the best in the world. A catalogue, giving full particulars regarding them, will be sent free to any one interested. When writing for it, enclose 20 cents in silver or postage stamps, and we will also send "How to Grow Cabbage and Celery," a book worth its weight in gold to any grower who has never read it. Address
ISAAC F. TILLINGHAST,
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THE AMERICAN BEE JOURNAL
CIRCULATES
ALL OVER THE WORLD
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THOS. G. NEWMAN & SON,
CHICAGO, ILL.

ONE DOLLAR PER YEAR.

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THOMAS G. NEWMAN,
EDITOR.

Vol. XXIX. Mar. 3, 1892. No. 10.

Editorial Buzzings.

We Regret to learn that earache and *La Grippe* have lately been afflicting Brother Ernest R. Root. We are glad to state that he is recovering his usual health. The weather has been so unfavorable of late that the indisposed would make a large army.

◆

Quite a number of circulars have been sent to this office concerning the Cronkleton method of preventing after-swarms, asking : "Is this a humbug?" "Is there anything in it?" etc. We do not know anything about the "method" proposed to be sold. From correspondence with Mr. Cronkleton, we think that he is sincere, and his "intentions" all right. But "schemes" are many, and there are some who are suspicious of even honorable dealings. We, therefore, advised him to select some bee-keeper of undoubted integrity, who was well-known, then advertise this method, and have the money sent to the person selected, and after examination, if the method was approved, to have the *modus operandi* sent to each subscriber, and the money paid to him. Instead of following our advice, he has sent out circulars. That is all we know of it.

◆

Our Honey Prophet sends the following as his predictions for the honey crop of Iowa this year. As he came so near to being correct last year, his "forecasts" become more interesting. He says :

> I promised to give the bee-keepers my predictions of the honey crop for next Summer, sometime this month. I will confine myself to Iowa at present, and will give my predictions for the other States sometime next month.
>
> The honey-flow will be far better in Iowa next Summer than it was last, and it will be still better in the eastern part of the State. It will be the best in Jackson and Clinton counties. It will be good at Tipton, and from there northeast through Jackson county to the Mississippi River. The worst failure will be at Glenwood, Mills county, and from there northeast through Cass, Guthrie and Dallas counties. It will not be good at Des Moines, the capital, but will get better from Polk county east. The flow will not be good in the western part of the State, but will be fair in the eastern part as a general rule.
>
> Cosby, Tenn. SAM WILSON.

◆

Lately the *Review* has given small half-tone pictures of the authors of communications at the beginning of each article. While those in the February issue are an improvement, still we much prefer ordinary wood engravings. Friend Hutchinson is very enterprising, and deserves great credit for the general typographical excellence of the *Review*.

◆

The Ravages of *La Grippe* are growing in intensity. The number of apiarists reported at this office as under its power is quite alarming.

Mr. McKnight, in the last issue of the *Canadian Bee Journal*, pays his respects to *Gleanings* and the AMERICAN BEE JOURNAL about the matter of the incorporation of the North American Bee-Keepers' Association.

Nothing now seems to need further remark, except, perhaps, the point about our consulting the rest of the "Committee on Incorporation," and deferring the matter until after the Albany Convention—but that idea never struck us.

It was fully discussed at Keokuk, and decided almost unanimously in favor of incorporation. The committee was appointed to consummate the work—*not to consult and defeat the vote of the convention !*

The work of the committee was purely ministerial. The only point it had to decide was as to who should sign the incorporation blanks. That was done by a full, free, and almost unanimous vote! The "life members" were instructed to sign the "blank application"—the Treasurer "pressed the button" (paid the fee), and the State "did the rest!" That is all there is of it.

If the Association ever tires of that relationship, all it has to do is to change its name, thus becoming a new but not incorporated body, and be entirely free to do as it may be inclined.

As far as the editor of the AMERICAN BEE JOURNAL is concerned, it is a matter of no interest whatever, one way or another, and he would not give a button to influence the decision either way. He heartily endorses the concluding sentence of Mr. McKnight's open letter to him, where he says:

"And now, in conclusion, permit me to assure you that nothing which has transpired has lessened our esteem for the brethren across the border, with whom some of us have had much pleasant intercourse in the past. The friction is between bodies corporate, and not between individuals."

As these corporate bodies have officially taken their positions, it is not worth while for the individuals to do anything else than to work together harmoniously for the general good. "Now, let us have peace."

The following from Bro. Root, also in reply to Bro. McKnight, will interest our readers :

Editor Canadian Bee Journal :—I have read with much interest the reply, by Mr. R. McKnight, to my editorial remarks regarding the action of the Ontario Bee-Keepers' Association with reference to further affiliation. I am pleased to observe his friendly and cordial spirit; and I am sure that, on my part, while I felt that the committee were laboring under a *big* mistake (and I think so yet), I had only the kindest intentions toward them.

It will be necessary to refer to only two points in reply to Mr. McKnight; and one is, I am certain that the purposes of incorporation, while they may not have been stated in open convention at Keokuk, were freely talked over in private conversation among the bee-keepers.

I know that Capt. Hetherington was not the first one to do this. Mr. Newman thoroughly explained the matter shortly after the Keokuk meeting, in an editorial—see page 6, Jan. 1, 1891, of the AMERICAN BEE JOURNAL.

As to what I meant by "available" matter, I will make an extract from a letter just received from Dr. Miller, which fully explains :

DEAR ERNEST :—I do not believe McKnight looked up "available" in any common dictionary, or he would find a definition that would make your statement all right. Moreover, it seems strange that McKnight is not familiar enough with newspaper terms to know that the word "available" is a word constantly used to mean : "For reasons satisfactory to ourselves we do not think it desirable to publish."

C. C. MILLER.

I might go on and reply to other points; but I believe that further discussion is ill-advised and unwise, as I have already made myself sufficiently plain in my original remarks on the subject. I believe that, if we cannot agree, the best thing for us to do is to pleasantly agree to disagree, as brothers, and let the matter drop.

I am glad that Mr. McKnight feels that the North American Bee-Keepers' Association is elastic enough to permit him to remain a member, as it surely is. In the same way, I hope the Ontario

Bee-Keepers' Association is also elastic enough to permit me to become a member when I may find it convenient to cross the line. If we cannot affiliate in name, we can, I am sure, associate in heart and spirit. Those of us in the United States who have felt the cordial entertainment from that fine body of Canadians while the North American Bee-Keepers' Association has been in session on their territory, would not willingly break loose every tie of fellowship. ERNEST R. ROOT.
Medina, O., Feb. 25, 1892.

What Funny things do sometimes occur! One day, last week, we received two letters so diametrically opposed to each other, while estimating personal character, that we think it will be quite interesting to insert them here.

One, which comes to us without signature or address, was sent to another bee-keeper, who, it seems, was thinking of submitting some description of an invention to us, for some purpose, and reads thus:

"You can send your letter and patent to him, but I want to warn you, before hand, that Newman is a dealer in apiarian goods, and he is not going to do anything for you, or anybody else, if it does not pay him to do it. The business world is *utterly selfish*, and our friends Newman and the Roots are no exception to the rule." — — ———.

In view of the fact that at least one-half of our time is spent in work which brings us no pay, and in which personally we have no financial interest—the above letter is very unfair and ungenerous! Then, on the other hand, the following letter dated Feb. 20, 1892, is from one of our most prominent apicultural writers, whose good opinion we value more than fine gold:

"FRIEND NEWMAN:—I wish especially to thank you for that reply to Jennie Atchley, found on page 262 of the last AMERICAN BEE JOURNAL. When I commenced to read the reply I almost expected to find after each sentence, 'but, so and so," as I find in all other papers dealing in supplies, where any bee-keeper has the courage to stand up in opposition to the editor, as did Sister A. Your fairness and candor has always won my admiration during all these years you have published the AMERICAN BEE JOURNAL. Long may you live to be at the helm of that best of weeklies—the AMERICAN BEE JOURNAL." — — ———.

We wish to thank the brother for his kind words, for we *know* that they are not intended to flatter us. Such helps one to bear the many burdens of life. We are not perfect by any means, but we *try* to be fair and honorable!

It is preposterous to think that our estimate of an invention is controlled by our interest in the sale of supplies. The supply department is wholly in charge of the "junior" member of the firm, and the editor does not concern himself about what is or is not kept for sale. Unless requested to give an opinion on the value of something new, he knows nothing about that department.

On the other hand, the "junior" knows nothing about the matter prepared for he BEE JOURNAL, and seldom sees any article until he reads it after it is printed.

Those who visit this office are well aware of this division of departmental labor, and can appreciate the unfairness of the first letter quoted.

As it is so easy to misjudge our fellow-men, we should be very careful not to wound their feelings unnecessarily.

The Madison and Oneida County Bee-Keepers' Association will hold its annual meeting at Oneida, N. Y., on March 9, 1892. It is hoped that there may be a good representation of the bee-keepers of that region.

Canadian Postage Stamps.—We have a superabundance of them, and we would suggest that when Canadians desire to send fractions of a dollar that they inclose paper currency, and we will return the "change" in stamps. That will turn the tables, and relieve our supply, which consists of 1, 2, 3, 5 and 10 cent stamps.

Queries and Replies.

Questions About Foul-Brood.

QUERY 808.—1. Is there anything else closely resembling foul-brood? 2. Will foul-brood disappear of itself as early as July, with the hive still full of brood? These questions are of much interest to me, as I find nothing in apiarian books or papers stating just at what time in the season foul-brood disappears.—Arkansas.

1. I do not know. 2. I suspect not. —EUGENE SECOR.

1. If there is, I have never seen it. 2. No, sir.—P. H. ELWOOD.

I have never seen a case of foul-brood. —J. M. HAMBAUGH.

I have never seen foul-brood, or anything like it.—MRS. J. N. HEATER.

1. Yes, chilled brood. 2. No; foul-brood will continue until the apiary is extinct, if allowed.—DADANT & SON.

I have had no practical experience with foul-brood, but from what I have read I would say "No" to both questions.—S. I. FREEBORN.

1. I do not know of any. 2. I do not think so, but I do not know. I am fortunate in having never seen foul-brood.—M. MAHIN.

I am happy to say that I have never had any experience with foul-brood. If you have it in your apiary, I would advise you to burn all hives infected with it.—MRS. L. HARRISON.

1. "Yes," there are certain conditions that cause brood to die with many of the characteristics of foul-brood. 2. Foul-brood will not leave you in July, nor any other month.—H. D. CUTTING.

1. I am glad that I can say that I never have had any experience with foul-brood. 2. I never heard of foul-brood disappearing by July, or any other time, without treatment.—E. FRANCE.

1. Not so far as I know. 2. Foul-brood, as a rule, does not disappear from the hive from one year's end to the other. The dead brood is there even when no brood-rearing is going on.—R. L. TAYLOR.

1. I think not, but I have had no experience with foul-brood, or anything resembling it. 2. I do not think, unless radical measures are adopted, that it will ever disappear during the lifetime of the bees.—C. H. DIBBERN.

1. From the fact that so much has bees said about just how to distinguish foul-brood, it seems pretty certain that other conditions may resemble it. 2. Does it ever disappear if let alone?—C. C. MILLER.

1. A novice might mistake decomposing *chilled* brood for foul-brood. 2. I do not think that foul-brood will disappear at any season of the year, for the germs of it will remain until destroyed. If the hive is *full* of healthy *brood* at the time of the disappearance of the disease, it has not been foul-brood—J. P. H. BROWN.

I know nothing of foul-brood by experience. I never saw but one case in a comb on exhibition at a bee-convention, and I backed up and looked at it with a spy-glass. With foul-brood more than anything else, do I believe in the adage, "An ounce of prevention is worth a pound of cure."—JAMES HEDDON.

1. Nothing, absolutely nothing, that I have ever seen. 2. Foul-brood will not disappear at any season of the year; but as it affects the immature bees only, it will not show as such, when the cells are all emptied of brood; although the germs of bacilli remain ready to attack the first brood that is attempted to be reared.—J. E. POND.

1. All I know about foul-brood has been gathered by extensive reading. Chilled and starved dead brood at some stages of its decay may resemble foul-brood so as to deceive any one but the expert. 2. It is possible, but I doubt if the genuine disease ever wears out till it destroys the victim, and has nothing left to perpetuate the poison.—G. W. DEMAREE.

1. I think not, at least not so near as to be mistaken by one informed. 2. I much doubt it. Do we know that it ever disappears, except that it just kills the colony? and even then it remains to sow seeds of destruction if the seeds are sown, as will likely be the case; the robber bees being the sowers.—A. J. COOK.

1. There is such as will deceive the novice. 2. Foul-brood will not disappear of itself so long as it has brood to work on. Of course, you do not find anything "in apiarian books or papers stating at what time in the season foul-brood disappears," and you never will in any work that is reliable. If you have

foul-brood in your apiary, cure it by the starvation plan, and do not let any one "fool" you into adopting any other plan; and if you are a *careless, slipshod* bee-keeper, get a careful hand to do the work for you, or dump the whole apiary and all its "fixin's" into a big bonfire, and done with the nuisance.—A. B. Mason.

1. Yes, a sort of dry dead brood. 2. Foul-bood never disappears until the colony becomes extinct. Where it has only just commenced in a colony, the bees may clean it out of the few cells containing dead pupæ, so give a semblance of its disappearing, but the next season will find it more aggressive than ever.—G. M. Doolittle.

1. Not that I know of. 2. Foul-brood is not in the habit of disappearing until it destroys the colony. Take other diseases, however, it does not always prevail with the same virulence or malignancy, so that a colony sometimes temporarily recovers only to be again attacked the following Spring.—G. L. Tinker.

1. Yes. Chilled brood may somewhat resemble foul-brood. There is also a disease closely resembling foul-brood except as to virulence and contagiousness. This will sometimes go away of itself. 2. Foul-brood is not of the disappearing kind. It may be covered up in Winter, but will be present as long as brood is reared in the infected colony.—J. A. Green.

1. Yes; chilled larvæ about four or five days old, especially if the cool spell lasts several days, and the bees do not get to remove it right away. But it in no way smells like foul-brood, nor does it act like it when picked with a pin, as foul-brood seems ropy, and chilled brood more rotten, or more easily pulled apart. But the chilled brood flattens down, and looks like real foul-brood, if you do not touch it. 2. *Foul*-brood will not disappear of itself at all, so long as there is material for it to live on. This you will surely find out if you ever have the real malignant foul-brood among your bees. Of course you may cure it by some of the many recipes, but it is a job.—Mrs. Jennie Atchley.

You will look in vain through the whole catalogue of bee-papers and books to find the season when foul-brood disappears. When it has accomplished its work and destroyed all the colonies within reach, is the only time when it may be said to "disappear."—The Editor.

Topics of Interest.

The Ohio State Convention.

S. R. MORRIS.

The eighth annual convention of the Ohio State Bee-Keepers' Association was held in West End Turner Hall, Cincinnati, Ohio, on Feb. 10, 11 and 12, 1892. The convention was called to order by President Chas. F. Muth, of Cincinnati, at 11 a.m., on Feb. 10, and the forenoon session was spent in hand shaking, social chat, and getting acquainted with each other. The convention adjourned until 2 p.m.

AFTERNOON SESSION.

After calling to order, the reading of the minutes of the last meeting was done by Miss Dema Bennett, of Bedford, O., who acted as assistant secretary. After the approval of the minutes, the following question was suggested by Dr. C. C. Miller, of Marengo, Ills.: "What is a bee-space?"

The subject was opened by Dr. C. C. Miller, and followed by discussion. The conclusion arrived at was, ¼ inch.

Next came the reading of an essay by Miss Dema Bennett, on "Taking up bee-keeping in a general way," and "How to manage the apiary." The essay was full of good hints on the subject, and was ably discussed.

One of the main topics of the essay, namely, "Cleaning debris out of hives in the Spring," was decided to be a good idea, but should not be done until the weather was sufficiently warm to avoid chilling the brood.

Another prominent topic was, "Carelessness in bee-keeping," which was discussed at considerable length, and the conclusion arrived at, that no person should undertake to keep bees who was too careless to give them any attention.

The consideration of "Winter stores," and "Labeling of honey for market," were also well considered by Miss Bennett, and afterwards discussed by the convention.

Adjourned until 7 p.m.

EVENING SESSION.

The first subject for discussion was, "Which is the better for the present bee-keeper, that the number of bee-keepers and honey-producers be increased, or diminished?"

The question was fully discussed, the convention agreeing upon the one idea, that no person should be encouraged to keep bees, who was not naturally adapted to the business.

At this point an opportunity was given to pay dues, and also to become members of the Association, to which a large number responded.

Subjects from the Question-Box.

The question-box was next opened, and the following questions read and discussed: "Was there an over-production of honey in the United States last season?"

Before discussing questions at any length, Rev. L. Johnson, of Kentucky, arose, and, by permission, introduced two sisters to the convention—Misses. Amelia and Mary Beach, of Beach Bluff, Covington, Ky.—stating that they had recently lost their father, who was a bee-keeper, and as they desired to continue the business, asked that a small contribution be raised for the purpose of purchasing "Langstroth's Revised" book; $2.10 was very soon collected, and presented to the two sisters, which amount was more than sufficient to pay for the book.

The question-box was again drawn upon, and the following question read: "Is not 18 or 20 cents per pound a high price for comb-honey?"

Those who discussed this question agreed that 18 and 20 cents is a high price for comb-honey for this year, everything else being considered.

Next question was, "Would you put bees, wintered in-doors, out before they can fly?"

This question was answered in the negative.

The next question was asked by Dr. C. C. Miller, viz.: "What is a standard section?" The 4¼x4¼x1⅞ inches was rather agreed upon, but a few favored a little smaller section.

SECOND DAY—MORNING SESSION.

The morning session was opened with prayer by Rev. L. Johnson, after which communications from Dr. A. B. Mason, Mrs. Anna L. Cowan, O. A. Cory and D. B. Combaugh were read. An invitation sent in by the President of the Cincinnati Chamber of Commerce, inviting the convention to visit the Chamber of Commerce, was also read, whereupon Dr. C. C. Miller moved that a vote of thanks be extended to the Chamber of Commerce, for their kind invitation.

Next, Mr. Chas. F. Muth read the following:

The President's Address.

Fellow Bee-Keepers:—

Since it is my pleasant duty to present the President's address, I take pleasure in offering you a most heartfelt welcome to our "Queen City of the West." As our worthy Mayor said, sometime ago, "We can intrust to your care the keys of the city," because it is a known fact that bee-keepers, as a class, rate second to none in regard to sociability and a general good character. We bid you a hearty welcome!

Bee-keepers attend their meetings in order to renew old friendships, make new ones, and have a general good time among friends. But very few would abandon the comforts of their homes, and travel hundreds of miles, if pleasure alone was the object. The *nerous rerum*, the matter of dollars and cents, plays quite an important part.

SOME IMPORTANT BEE-QUESTIONS.

The question of how to make our business pay best is of vital interest to every one of us, especially at a time like the present, when competition with the sugar interests bears heavily on the prices of honey. The knowledge of economy in apiculture, and the art of producing the largest crops, is nowhere better elucidated than in our meetings.

Bee-keepers have no secrets, as is the case among the followers of many other pursuits. Perhaps all of us have gathered the most points from a personal exchange of ideas at bee-keepers' meetings.

The next question, and by no means the least, is, How can we market our honey best, and in what shape or manner offered, does it bring the best prices? These are the questions that bring us together, and the solution of which is exercising the brains of the best bee-keepers.

SPRING MANAGEMENT OF BEES.

Since extracted-honey has almost become a staple article, every bee-keeper may decide for himself whether he should produce comb or extracted-honey, or both. The main question with him is as to the best means to employ for the production of a large crop.

He may have the most prolific queens, his successful wintering may be an accomplished fact, and his colonies may be in a flourishing condition four or five weeks previous to the beginning of the honey harvest, but, misled by fine weather and the lively flight of his bees, he forgets that flowers, generally, yield no honey just at that period, and that the consumption of their stores is greatest when brood-rearing is at its best. Every thing may seem prosperous to our sanguine friend until he sees dead larvæ at the alighting-boards.

Upon examination, he finds the hives full of bees, no stores, and little or no larvæ in the cells. The bees had found themselves short of food, hard times was staring them in the face, and, moved by the sense of self-preservation, they had sacrificed their young. They had pulled their larvæ out of the cells, and out of the hives, in order to make their stores hold out as long as possible.

His bees should have been fed four or five weeks previous to this time, and now they must be fed without delay, and they must have a plenty, so as to make them breed up again. But as it requires a time of three weeks before the first yonng bees will hatch out after the eggs are laid, and two weeks more before they become foragers, and as our honey harvests hardly ever last longer than four or five weeks, often less than three weeks, the colonies will be in good condition again just in time to be too late for that season. The bee-keeper has lost the earnings of his year's labor, while, by a timely feeding, he would have secured a good crop of honey. It is just there where most bee-keepers make their mistake, and not beginners only commit that error.

The consumption of their Winter stores begins with brood-rearing, and in the same ratio that the brood increases, the stores decrease. The question whether more honey is consumed by out-door or in-door wintering is, therefore, immaterial. The difference is small. The old bees only are the foragers, while their young stay at home, taking care of the brood, preparing the cells for the reception of eggs and honey, ripen the honey, and close the cells when filled.

It is, therefore, of the greatest importance to have our colonies strong in old and young bees, and ready for the harvest at the time the season begins, which is, in southern Ohio, the latter part of May, the time when white clover comes into bloom.

MARKETING OF THE HONEY CROP.

The marketing of honey proves often as difficult a matter as its production. Bee-keepers can form no "trusts," and their abilities and individual tendencies are differently developed. They seek a market where they can best find it. But the object of all should be to offer their honey in neat, clean packages.

Comb-honey should always be put up in neat glass cases, or in neat cartons, as the case may be. It should be properly graded as to quality. The sections should be clean, and no combs of dark color should be mixed with the white. The front row exposed to view, should always be a fair sample of the contents of the case.

One-pound sections (4¼x4¼) are the most salable, while smaller ones are in no demand. Two-pound sections also, nicely filled with white combs, find a ready sale in our market. We make but little difference, if any, in the price of the two. Consumers make a decided distinction between clover and basswood extracted-honey, while such is not the case with comb. Comb-honey is a fancy article, and must be white. Its attractive appearance, principally, insures a ready sale.

HONEY AND SUGAR COMPETITION.

Extracted-honey seems to have become a staple article in spite of all the obstacles put in its way. The bounty on sugar, with the exclusion of honey, discriminates against the production of bee-keepers, and is an injustice which Mr. McKinley and his committee would not have been guilty of, had they been posted on the subject. It is of vital interest to a large class of industrious and loyal citizens to have honey come in under the same laws protecting the production of other sweets. Bee-keepers must spare no efforts to have justice done them in this respect.

We are in favor of a protective tariff. The West India Islands have a honey harvest of about eight months in a year, while the season on this continent does not exceed four weeks, on an average. If the duty were taken off the import of foreign honey, Cuba alone would swamp our country, and deal a blow at the most vital parts of apiculture.

Bee-keeping, being a branch of agriculture, which receives the fostering care of our Government, should by no means be neglected. Bee-keepers must spare no efforts to guard against such calamity.

FREIGHT RATES ON HONEY.

Freight rates on extracted-honey in barrels, which is of the same consistency, weight, and of about the same value as syrup or molasses, are exhorbitant and unjust. The former is rated under first-class freight, and the latter under fifth-class. In other words, railroad companies charge us about $1.50 for a barrel of molasses from New Orleans to Cincinnati, and about $5.50 for honey, which is detrimental to the trade, and should be remedied.

The Inter-State Commerce Commission has been petitioned by us, and numerous letters have been addressed to freight agents, but—great bodies move slow, we must try again, and never rest until honey and syrup are rated under the same class.

PACKAGES FOR EXTRACTED HONEY.

The most popular packages for retailing extracted-honey are, perhaps, square glass jars holding from 5 ounces to 2 pounds; and tin buckets holding 5, 10, 25 and 50 or 60 pounds.

The objections to granulation of honey become less with every year, as the public becomes more acquainted with its nature, and convinced that its granulation works rather an improvement to the flavor, and is no deterioration, as it erroneously had been looked upon.

THE TRADE IN EXTRACTED HONEY.

There is a larger trade done now, in extracted-honey, for family use, than we had any reason to expect only ten years ago. Honey is cheaper than butter, more wholesome, and can be spread on bread like butter. Few families in large cities do without honey on their tables.

But the largest business, by far, is done with manufacturers. We alone have customers to whom we shipped 1,500 to 5,000 pounds per week, and we have sold repeatedly a carload of extracted-honey to single firms. Honey in barrels and half barrels is the shape preferred by manufacturers, but no particular objections are made to tin cans. The principal requisite seems to be that the honey is put up in clean and tight packages. No excuse is accepted by manufacturers and other buyers for uncleanliness.

Here I must repeat a remark made before this, that no honey should be barreled direct from the extractor. All extracted-honey should stand in open vessels for a few days at least (the longer the better), for evaporation and ripening, and it must be thoroughly skimmed before it is barreled. The thick, ripe honey settles to the bottom, while its thin, watery parts rise to the top, together with the specks of wax of the uncapping of the combs. During the rush of the season, and when evaporating cans are scarce, the thick honey may be drawn off from below, and the new extractings be added to the rest. Honey so treated will form a solid granulation, and no watery pools full of specks of wax are found under the bunghole. No fermentation will take place, even if the honey is kept in a cellar.

WORLD'S FAIR APIARIAN EXHIBIT.

The participation of Ohio bee-keepers in the Columbian Exposition should be considered by the convention.

I recommend the appointment of Dr. A. B. Mason, of Auburndale, O., as General Superintendent of the Bee-Department at the World's Fair. Dr. Mason is a man of experience, and possesses the confidence of the bee-keepers of the country.

I recommend, also, that a committee be appointed to confer with the Agricultural Commission of the State, as to space, and the appropriation due to the bee-keepers. It seems to me to me that an appropriation of $5,000 would meet the requirements necessary to be made worthy of the State and the bee-keepers of Ohio. It is necessary to impress upon the General Government the magnitude at stake of the bee-keeping interests of the country.

CHAS. F. MUTH.

After the reading of President Muth's address, Miss Dema Bennett moved that Dr. A. B. Mason be recommended as General Superintendent of the Apiarian Department at the Columbian Exposition, to be held in Chicago in 1893. The motion was carried unanimously.

James H. Colville suggested that President C. F. Muth state to the Cincinnati Chamber of Commerce the inequality that exists at the present time between the freights on extracted-honey and molasses in barrels. It was also resolved that this convention ask the influence of Messrs. C. F. Muth, A. I. Root and Thomas G. Newman, in getting extracted-honey put in the same class of freight rates as molasses.

At this point the convention took a recess, and *en masse* accepted the invitation to visit the Chamber of Commerce, which was found to be in session. The convention was received and treated with a great deal of courtesy.

AFTERNOON SESSION.

First was an essay by G. W. Demaree, on, "How to prevent swarming." As Mr. Demaree was not present, Miss Dema Bennett read the essay, after which it was discussed. All complimented the essay very highly, and regretted that Mr. Demaree could not be present.

This question was next drawn from the box, "Is it best to put queen-excluders between the brood-nest and the sections?" It was argued in the main that it is not necessary.

Mr. O. A. Cory next offered the following question, "Is it necessary that the combs all be capped before extracting them?" It was decided by discussion that it is not necessary, as honey can easily be ripened after it is extracted.

"Is *melilotus alba*, or sweet clover, a good honey-plant? Also, is it a good fertilizer?"

Mr. O. A. Cory stated that at one time he had received about 600 pounds of honey from it, but thought it would be a difficult comb-honey to ship, on account of its brittleness.

President Muth claimed that it would kill out white clover, while J. B. Hains thought it a pretty good honey-plant. No one recommended it as a good fertilizer.

"Should bee-keepers ask the Government to put a bounty on honey, the same as there is now on sugar?

Mr. J. B. Hains, with the greatest of emphasis, said "No." All who discussed the question argued against a bounty on honey.

"Which is preferable, top or bottom ventilation?" The arguments all favored bottom ventilation.

Adjourned until 7 p.m.

EVENING SESSION.

The evening session was opened with the following question: "Do bees puncture grapes and other fruit?" All claimed that bees do not puncture, or injure fruit, but that they will work on it some after something else breaks the skin.

The foul-brood question was discussed, and the total destruction of all colonies, hives, combs, honey and bees was advised as soon as the dreaded disease shows itself.

"The fertilization of the flowers by bees," was next discussed. Dr. C. C. Miller gave a very interesting and instructive argument in favor of the bees as regards their importance as fertilizers. All acquiesced in the statement of Dr. Miller.

The hour having arrived that Dr. Miller was to board the train for Medina, O., he was induced to read an article, which he did, entitled, "George Washington and his little hatchet." The subject was on old one, but the unique manner in which the Doctor rendered it made it new to all present. After, the reading, a general hand shaking and "Good-bye Doctor" was engaged in for a short time, after which the Doctor left.

Miss Dema Bennett read the following resolutions:

Resolved, That the hearty thanks of the Association be tendered to the proprietors of the West End Turner Hall for the free use of their commodious hall for our meetings; also for all other courtesies extended to us on this occasion.

Resolved, That we extend our thanks also to the press of the city for the interest manifested by them in this meeting, and for favorable comments appearing in the several papers of the city; also thanks to the various railroad companies which have given us reduced rates.

Resolved, That we, as members of this Association, are saddened by the tidings from our venerable friend and benefactor, Rev. L. L. Langstroth, and sincerely hope for his speedy restoration to a comfortable degree of health and strength.

Resolved, That we appreciate the benefit conferred upon us by the presence of Dr. C. C. Miller, of Marengo, Ills.; and the ladies and gentlemen of our sister States, Kentucky and Indiana, and hope that our future conventions will again be enlightened by their presence.

Resolved, That this Association does most heartily recommend and endorse the recommendation of the "North American," and also several of the State bee-keepers' associations, that Dr. A. B. Mason, of Auburndale, O., be appointed Superintendent of the Apicultural Department of the United States at the Columbian Exposition to be held in the city of Chicago, in 1893.

MISS DEMA BENNETT,
J. B. HAINS,
W. O. TITUS,
Committee.

After the adoption of the foregoing resolutions, the question, "How to render beeswax?" was discussed. It was advised never to render wax in iron kettles, but use tin kettles for this purpose.

S. R. Morris said that he had always rendered wax in iron kettles, and got wax nice enough to carry off the red card at the Ohio Sate Fair, at Columbus.

J. B. Hains said he uses the wax extractor.

"Should the bee-keepers of Southern Ohio and Northern Kentucky produce comb-honey or extracted-honey?"

J. T. Connelly advised the production of extracted-honey.

O. A. Cory said he worked one-third of his apiary for extracted, and two-thirds for comb-honey; and favors curing comb-honey ten or twelve days after being taken from the bees, by keeping it in a warm, well-ventilated room before it is fit for market.

Next was the reading of Dr. G. L. Tinker's essay by President C. F. Muth, the Doctor being absent.

The subject was, "Are closed-end frames preferable to open-end ones?" The want of time prevented the discussion of the essay, but the writer argued in favor of the open-end frame.

After the reception of three more members and their dues, the convention adjourned until 9 a.m., the following day.

THIRD DAY—MORNING SESSION.

The first subject was by O. A. Cory, "Are the divided swarms less vigorous than natural ones?" Mr. C. opened the discussion, and was followed by others, all of whom discouraged the practice of dividing colonies, thereby weakening and lessening the amount of surplus honey.

Dr. R. A. Mullenaux practices dividing colonies, but rears his own queens, and supplies the queenless colony with a queen immediately.

W. O. Titus asked Dr. Mullenaux how long he would keep virgin queens caged, and his answer was, "As long as ten days, if necessary." He also advises introducing virgin queens to colonies having plenty of young bees and brood.

At this point the President asked the convention where they would hold their next meeting. Cleveland, Columbus, and Washington Court House were named, but it was decided to go to Washington C. H.

The election of officers was the next in order, and resulted as follows:

President—S. R. Morris, of Bloomingburg, O.

Vice-President—Chas. F. Muth, of Cincinnati.

Secretary and Treasurer—Miss Dema Bennett, of Bedford, O.

J. B. Hains, E. R. Root, John Calvert, and O. A. Cory were appointed a committee to meet with the Agricultural Board and the Commissioners of the World's Fair.

The reading of the Secretary's and Treasurer's reports was next in order, and it was found that there was a deficit of $3.00, which was very soon made up and the books balanced.

On motion President Chas. F. Muth was made an honorary member of the Ohio State Bee-Keepers' Asssociation.

The convention then adjourned to meet at Washington C. H., Ohio, at the call of the President, sometime during the Winter of 1892-93.

S. R. Morris, *Sec.*

Grading Comb-Honey, Etc.

F. GREINER.

While the above subject is up for discussion, would it not be well for all, who feel interested, and have anything to offer, to take a hand in it? Permit me to give my ideas on this important subject.

To begin with, I want to say that location has much to do with the method of grading. The honey gathered in my locality is extremely difficult to grade. In most seasons we have it in all shades, from the light-colored basswood and sumac to the dark buckwheat—yes, and still darker honey-dew.

A distinction could be made between six or eight different colors; now if we must add still other grades as to appearance, finishing, all sealed or not, travel-stained, etc., we would soon, by multiplication, have 25 or 30, or more different grades. Of course such a thing would be an impracticability.

It is undesirable to have many grades if it can be avoided. In other locations, practically only one kind of honey is stored in the sections; here we find the whole honey-crop of uniform color. The Shenandoah Valley is such a location, to judge from my two years' experience there. I found the grading a very easy matter—selection as to weight was all that was necessary.

In my estimation, *color* in grading should stand first. I observed in the retail trade, the lighter colored the honey, the higher it is rated. I believe it is far less essential that all cells next to the wood be filled and sealed; in fact, I would pay no attention to this whatever; but otherwise there should be no unsealed cells (or nearly none) anywhere, and in any grade. However, I consider it of importance to have the sections of as even weight as possible. I would put the ligher, as well as the heavier ones, by themselves; but in the same grade, if of the same color.

If we examine the market reports of the different places, we find that at present three distinct grades at most are being recognized, viz.: 1, white, fancy or choice; 2, fair or mixed; 3, buckwheat. All honey must be embraced in these three grades, and I wonder if they are not sufficient for all emergencies. I have graded quite a number of tons of honey according to thls schedule. I have placed the white clover and basswood honey into grade No. 1. All off-grade and slightly mixed with dark honey, into No. 2; and buckwheat and dark honey into No. 3.

It seems to me that we do not need anything better, and I hope the leading bee-keepers may not go into extremes, making the grading of comb-honey such a difficult task, that we common mortals may be unable to accomplish it according to the rules.

I see no good reason why one section of superfine honey should not be placed in the same grade with its mate, solely on account of a few cells next to the wood being unsealed, or because the wood part of the section is somewhat soiled. (Badly soiled sections no bee-keeper ought to use, and while being on the hive they ought to be so protected that they cannot be soiled.)

Summing up, I would urge, that the already acknowledged three grades be accepted as the standard.

Furthermore, I want to say: To signify the different grades by letters, I am inclined to think is a mistake. Numbers are much the simplest, and have a meaning in themselves. Even without explanation all will understand at once that No. 1 stands for best grade, No. 2 for second grade, etc.; but to signify A, C, M and S will always necessitate explanations, which may be misunderstood or forgotten, and thus cause confusion, dissatisfaction and loss.

NET WEIGHT ON HONEY-CRATES.

Another point I wish to bring up for discussion, although it may not have much to do with grading, is this: It seems to answer all purposes to just mark the *net* weight upon each crate. I have done this for years, and find that it is all that is necessary. Would it not be well to have an understanding all around, while we are about it?

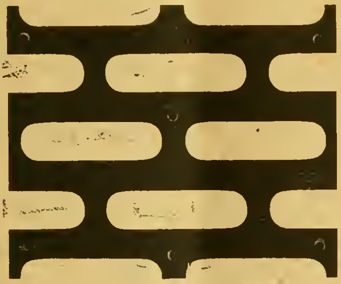
The sooner we have this grading business settled, the better; and if we could come to an understanding before the next crop is to be marketed, it would be a great advantage. Still, it may be advisable to content ourselves until the North American Bee-Keepers' Association meets again.

Naples, N. Y., Jan. 25, 1892.

Drone-Excluder Perforated Zinc.

DR. G. L. TINKER.

Quite a number of bee-keepers in the last few years have expressed a desire for a perforated zinc that would allow the passage of the queens and workers, but would exclude the drones.



Drone-Excluder Zinc.

Zinc of this kind is best used in the common queen and drone trap instead of queen-excluder zinc. Its principal use is on colonies having objectionable drones where a virgin queen must be allowed to fly out to mate. There are few bee-keepers but have one or more such colonies where it is desired to change the colony and queen, as in Italianizing, and in the superseding of hybrid queens, etc.

In these cases a queen-trap may be put on, and may catch all the drones that are ready to fly out, but as there are young drones constantly hatching and maturing, it will be seen that if such a colony has a virgin queen, the queen-trap must be taken away from it for a few days until the queen is mated. So that when she issues there will be many objectionable drones to fly out with her. The placing of a trap with the drone-excluder zinc before such a colony will catch the drones and allow the young queen to pass out readily.

Not alone many bee-keepers who desire to keep a pure stock of bees, but the queen-breeder more especially is interested in the use of drone-excluder zinc, for he will be able to effectually prevent in-and-in breeding by the undesirable mating of his young queens.

In my own experience as a queen-breeder, I have many times been obliged to look through a colony of bees comb by comb, and hand-pick objectionable drones, and also to destroy the drone-brood. If I had had drone-excluder zinc, all of this trouble would have been unnecessary.

I might also add that this zinc has been used for screening purposes in threshing machine separators in threshing wheat, and it has been found superior to every other kind of screen that has been used.

A machine in use the past harvest in this county having this zinc, cleaned the wheat so perfectly that it was sought for far and near to the exclusion of other machines.

New Philadelphia, O.

[A sheet of this queen-excluding zinc, from Dr. Tinker, is placed in our Museum for the inspection of visitors.—Ed.]

Early Brood—Bee-Items.

J. A. HOLMBERG.

The last of November, 1891, I moved all colonies into the bee-house, except one which I left on the summer stand, and they seem to winter nicely. On Jan. 30, 1892, one colony became worried, and I moved it out, as that was a fine day—48°, Fahr., above zero. I examined it, and to my surprise it had 5 inches square of sealed brood, and lots of eggs. Then I went to the hive on the summer stand, and found the same condition. I have between 50 and 60 colonies in the bee-house.

The Simplicity hive I like very much, as the frames are nice to handle, and the arrangement is easy to put on.

Last year I extracted from one colony 150 pounds of white clover honey, and had one swarm beside. The dovetailed hive I do not like as well. I should like the Simplicity frames in the Summer time, and frames 12x12 inches to winter bees on.

I work my apiary for extracted-honey, as I can sell that best. I sell all my honey at home for 15 cents a pound. I obtained 1,800 pounds of white clover honey last year. I secured scarcely any Fall honey. There are about a dozen bee-keepers here, and we all sell honey at the same price, and my customers know, year after year, what they have to pay.

It is a different thing with the comb-honey here. We can get comb-honey for 10, 12 or 15 cents a pound from commission houses, shipped from other States here. I am sorry that comb-honey is not worth more. A strange bee-keeper came into this neighborhood, and had a load of honey to sell, but he could not sell it at any price, because the people did not know whether it was honey or not; but then he spoiled the honey market for me for sometime.

I have kept bees since I was 12 years of age, except between 1878 and 1882, and now I am 37 years old. The Bee Journal is a welcome visitor. I read it through the same day that it comes.

St. Paul, Minn., Feb. 15, 1892.

The Colorado State Convention.

[Continued from page 256.]

AFTERNOON SESSION.

The question, "Which is the most profitable, comb or extracted-honey?" by F. O. Blair, was responded to as follows:

H. L. Rauchfuss—I do not know, but think there is very little difference; it is impossible to decide without a great deal of experience.

R. H. Rhodes—Extracted was the most profitable, but at present I do not know.

W. L. Porter—I have had 15 years' experience, but I do not know; I can get one-third more extracted than comb-honey. I have about decided that honey in the comb is the most salable.

Chas. Adams—The price received should determine which we are to produce.

L. Brock—I prefer to produce comb honey; it is less work, costs 1¾ cents per pound to produce.

H. L. Rauchfuss—It does cost some bee-keepers 15 cents per pound to produce comb-honey, but they do not know it.

Mrs. Hartman—I do not think that an able bodied man can afford to keep bees, the profits are too small.

E. B. Porter—I extend an invitation from the Weld County Bee-Keepers' Association.

T. H. Rhodes—I move that the "Honey Day" committee be increased by four members. Carried.

J. B. Adams, Chas. Adams, E. B. Porter and R. C. Aiken were appointed as additional members. Resignation of V. Devinney from "Honey Day" committee accepted.

Dr. Shaw—We are expecting to have an exhibition here in Denver, and the honey show should be held then.

Wintering Bees in Colorado.

"Which is the best plan for wintering bees in Colorado?"

W. L. Porter—I have decided that it is best to winter them on the summer stands, with chaff above the brood-frames.

L. Brock—I winter my bees successfully with a tight board fence to the west of them, and straw packed around the hives.

Mrs. Booth—In wintering, I give them no protection except a gunny-sack over the tops of the frames.

J. B. Adams—I used to place my hives over a bin with a roof over, and chaff packed around them; the chaff got wet and heated, which did harm. I winter bees now on the summer stands, with chaff in the upper story.

J. M. Clark—I have always wintered bees successfully on the summer stands, with nothing but a gunny-sack over the brood-nest.

L. Brock—If bees go into winter quarters strong with plenty of honey, but little protection is needed. My average yield per colony of comb-honey has been 60 pounds. My bees that are in hives facing south, winter better than those fronting eastward.

F. C. Blair—My experience is, that in wintering but little protection is needed.

R. C. Aiken—A very little packing is necessary through the Winter, Spring is the time when they need protection. I would front the hive eastward, so the bees will take their exercise in the morning.

H. L. Rauchfuss—Our loss in wintering is very small. We simply put chaff above the brood-nest; in the Spring we contract the brood-camber by the use of two division-boards, one on each side, and place honey outside the division-board for the bees to transfer to the brood-chamber.

Chas. Adams—The main feature in wintering is to have good young queens.

Mrs. Greer—I have placed my bees under an open shed, but the condensed moisture in the hives runs out at the entrance.

Chas. Adams—That is a common thing.

Mrs. Booth—I never saw anything of the kind.

R. A. Southworth—With proper packing no moisture is discernible.

J. B. Adams—If water was running from the entrance of my hives, I would expect the bees to die; I would decide right away that they were too cold.

Chas. Adams—It is a sign that the bees are too warm.

R. C. Aiken—I recommend placing an absorbent above the brood, this will let the moisture pass through and retain the warmth. I would make a request that all members state when their honey flow begins and ends; also the source.

Question-Box Subjects.

"How do you prevent swarming?"

H. L. Rauchfuss—Produce extracted-honey, and thus prevent it.

"Is it advisable to exchange the outside brood-frames with those in the center of the brood-chamber, to increase the breeding capacity?"

R. C. Aiken—It is proper and good, if thoroughly understood.

"Shall we have a rule for estimating the cost of honey? and if so, what shall it be?"

J. B. Adams—In estimating the cost of honey, everything in connection with it should be figured.

B. Honnet—We should not figure on Spring count, but on the whole number of colonies in the apiary at the time the honey is produced.

J. M. Clark—To estimate from the Spring count, is the only correct way.

"What was the cause of the scant supply of honey the past season?"

Mrs. Booth—Damp weather prevented the flowers from secreting honey.

Mrs. Rhodes—The alfalfa was cut too soon.

Mrs. Greer—We had too much wet weather.

F. O. Blair—The weather was too dry in my locality.

"Does it pay to use separators?"

L. Brock—I do not want them,

"Would this Association recommend the planting of Japanese buckwheat for bee-pasturage?"

"No, the honey is too dark," many replied.

"Is it best to have the entrance of hives open the full width during the Winter?"

"No," several answered.

"What is the best honey-producing plant in Colorado?"

Some said cleome; many said alfalfa.

President Milleson delivered his address at this time in the proceedings.

The following officers were elected for 1892:

President—E. B. Porter, Longmont.
Secretary—H. Knight, Littleton.
Vice-President-at-Large—R. C. Aiken, Loveland.
Treasurer—Mrs. R. H. Rhodes, Arvada.
Member of Executive Committe—Mrs. Levi Booth.

A communication from the World's Fair commissioners was read and approved.

The following were appointed on the World's Fair committee: Benj. Honnett, J. B. Adams, and Mrs. M. M. White.

An invitation was received to attend the Farmers' Institute at Golden, Colo.

The by-laws were changed to read, "membership fees, $1.00."

A discussion of various subjects then followed.

Bills were read and referred to Finance Committee; presentation of gavel to President Porter by ex-President Milleson; and a vote of thanks tendered to the retiring President.

After discussion, it was decided to hold the next meeting in night sessions, at Golden, Colo., April 21, 1892.

Adjourned.

H. Knight, *Sec.*

Yellow Bees vs. the Blacks.

THOS. JOHNSON.

On page 192 Mr. A. D. Ellingwood gives the idea that the black bees are superior to Italians. He also states that he has made a canvass of the Eastern States, and finds the blacks popular, and that he has been complimented upon his courage in defending them.

The Italian bees are far superior to the blacks. They are more docile, more prolific, better honey-gatherers, and can reach nectar in red clover and other bloom of like nature, where the blacks cannot.

They are better protectors of their homes from intruders, keep the moths clear from their homes, and will stick to the comb better when handling. They are better comb builders, for the reason that they do not use as much wax to accomplish the same result, by one-third, as do the blacks.

It is true that the honey when capped by the blacks is whiter, for the reason that they do not fill the cells so compactly as the Italians; and also because the blacks use double the wax for capping that the Italians do. I discovered this by microscopical examination.

In 1891 I had 2 colonies three miles from my home for an experiment—one colony of Italians and one colony of the best blacks I could procure. I kept them from swarming, and both were worked for extracted-honey. The Italians produced 120 pounds, and the blacks 25 pounds of honey. I had both of the queens' wings clipped, and the same queens were with the colonies on Oct. 15.

Mr. Ellingwood says that his Italians swarm too much. There is a difference in families, and I am as particular in breeding for non-swarming, as well as other points, and every queen-breeder should be. He says that he has six years' experience, and is prepared to prove wonders for his favorite blacks. I am just as well prepared to defend the yellow race of bees. I have now four different varieties of bees, and will run three different apiaries this year. I am not prejudiced against any race of bees, and I have had more or less to do with bees since 1860; still I find lots to learn, and sometimes, when I try to investigate in bee-culture, and get puzzled, I begin to think that there is lots yet to learn about bees, and some of the best questions to be solved will never be fully understood.

Coon Rapids, Iowa.

Ontario Convention.

The annual meeting was held at London, Ont., on Jan. 5 and 6, 1892. President Pringle in the chair, who gave an excellent address.

One subject presented was "Hives and Wintering," by D. Chalmers. This brought out remarks on the wintering of bees.

An essay by Mr. R. H. Smith, of Bracebridge, was accompanied by a photograph of his exhibit at the last Toronto Industrial Fair, which was very fine, and all the more interesting because it came from Muskoka, and showed that first-class honey can be produced even in that northerly region.

The report of the foul-brood inspector, Mr. McEvoy, showed what had been done during the past year to repress and exterminate that fell scourge of the apiary.

An essay was read by Mr. R. H. Myers, of Stratford, on "Rendering old combs," which contained much practical information, and led to some useful discussion. The "sun extractor" was recommended by several who had tried it, as the best method of rendering old comb into beeswax.

Mr. J. B. Hall, of Woodstock, read an essay on "Comb or extracted-honey—which ?" It was valuable as giving the experience of one of the best honey producers in Canada. He stated that, with good management, 80 per cent. of comb-honey could be got, as against 100 per cent. of extracted, with the advantage of empty combs to work with for the extracted article.

Mr. Jacob Alpaugh, of St. Shomas, one of the best bee-keepers in Ontario, has devised a new system of management for the production of a large average of comb-honey.

The Treasurer's report showed the finances of the Association to be in a prosperous condition. Mr. F. A. Gemmill, of Stratford, was appointed President for the coming year, and Walkerton was chosen as the place for the next annual meeting.—*Montreal Witness.*

[The matter concerning affiliation was published on page 185.

The essays will be given hereafter as opportunity offers.—Ed.]

Our Book—Bees and Honey.

A new (the eighth) edition of the well-known work, "Bees and Honey, or the Management of an Apiary for Pleasure and Profit," thoroughly revised and largely re-written, is sent to us by Thos. G. Newman, the author, Chicago. It is a duodecimo volume of 250 pages, adorned with a great number of illustrations (including portraits of all the chief students of the bee, living and dead), and neatly bound in cloth. The price is $1.—*Country Gentleman.*

CONVENTION DIRECTORY.

Time and place of meeting.

1892.
Apr. 6, 7.—Texas State, at Greenville, Tex.
A. H. Jones, Sec., Golden, Tex.

Apr. 7.—Utah, at Salt Lake City, Utah.
John C. Swaner, Sec., Salt Lake City, Utah.

Apr. 21.—Colorado State, at Golden, Colo.
H. Knight, Sec., Littleton, Colo.

May 5.—Susquehanna Co., at Brooklyn, Pa.
H. M. Seeley, Sec., Harford, Pa.

May 28.—Haldimand, at Nelles' Corners, Ont.
E. C. Campbell, Sec. Cayuga, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Eugene Secor..Forest City, Iowa.
SECRETARY—W. Z. Hutchinson....Flint, Mich.

National Bee-Keepers' Union.

PRESIDENT—James Heddon ..Dowagiac, Mich.
SEC'Y AND MANAGER—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Packed with Forest Leaves.

My bees are apparently wintering well, notwithstanding they stored nothing last Summer but honey-dew. I have 9 colonies; 3 in the cellar, and 6 packed in forest leaves, on the summer stands. Those on the summer stands seem to be very lively, every warm, sunny day. I am prejudiced against cellar wintering, because I lost 14 colonies, a few years since, in the cellar, on account of their fouling the combs, causing them to mold. This is an experiment.

LEVI HIGGINS.
Orion, Ills., Feb. 22, 1892.

Brown Bees for Honey.

I have spent a good deal of money to get Italians, and now I am getting rid of or trading them for our wild native brown bees. The Italian bees are no good here, only to rob and sting and swarm. By putting brood-frames in the top story, we can get some surplus honey, but Italians will not put any honey in the 4¼x4¼ sections. I have one Italian colony that swarmed seven times in one Summer, and I had to unite two swarms to Winter them. I have handled bees for over 30 years, and have tried the Italians for 6 years, and I find that our native brown bees are far ahead of them in every way. I had a little over three tons of comb-honey last season, and it was all from black or brown bees. I had 23 colonies of Italians, but not a pound of surplus honey from them. I want to defend the bees which I know are the best for business.

SETH NELSON.
Wistar, Pa.

Planting Basswood Trees.

1. Would it pay to set out basswoods in a vicinity where the honey-flow ends with white clover? 2. If so, how many should I set per each colony? 3. How long would I have to wait before I get any benefit from them?

PENNA.

[It would doubtless pay to set out young basswood trees from 3 to 6 feet high. They take about five years to bear a fair amount of blossoms. Planting from the seed is quite unsatisfactory. One tree should furnish enough honey for 3 or 4 colonies in good seasons. It usually gives nectar in alternate years. —ED.]

Many Colonies Weak.

Cold weather has kept the bees in the hives seven weeks or more. No doubt they are suffering for want of a flight. Open weather in Fall and December weakened many colonies. Probably the loss will be considerable.

J. H. ANDRE.
Lockwood, N. Y., Feb. 24, 1892.

Song Birds have Come.

We have had a severe Winter for this country. My bees brought in their first pollen on Feb. 22. Last year their first pollen was brought in on Feb. 17. There has not been a week but my bees have had a "flight." The coldest morning the thermometer indicated 10° above zero. This has been a beautiful, warm day. The woods have been vocal with the songs of birds.

J. G. TETER.
Athens, Tenn., Feb. 22, 1892.

Room for Exhibits at the World's Fair.

I see that it is proposed to hold a bee-keepers' convention at Chicago during the World's Fair, and that Mrs. Harrison proposes to invite the bee-keepers of all nations to come and bring their hives, whether of "wood, straw, earthenware, stone or mud. Tell them to come and be welcome." Now, if each can have but 10 feet square for bees and bee-fixtures, what could be done with any hives or bee-fixtures if brought. At the Ohio Centennial, in 1888, nearly all the space in a good-sized room was filled, and still very good displays of honey, where the countries had their exhibits of fruit, vegetables and grain; and Roots' machinery for making sections in still another place, but possibly we shall all have room enough.

O. B. Barrows.

Marshalltown, Iowa, Feb. 23, 1892.

[The "room" question is a difficult one to solve. There is to be a space 400 feet long by 5 feet wide against a wall where two or three shelves may be placed, which can be used for the exhibit of apiarian supplies—but to show thousands of full size hives would be useless when small models will be better, and take up much less room.—Ed.]

Wintering Nicely—Fine Weather.

For the last two years I have been in the employ of E. S. Dundy, Jr., Clerk of the United States Court of Nebraska. The first of March I take charge of P. W. Birkhauser's stock farm. He is chairman of the Board of Public Works of Omaha, so you see I am in the employ of business men of considerable influence. My bees are all wintering in the cellar, and are doing nicely so far. My crop of honey last year was light, but of fine quality. I sold all I had to spare to one groceryman in the city.

W. H. Martin.

Richfield, Nebr., Feb. 22, 1892.

Bees Wintering Well.

Bees did well in this part of Nebraska last year, and are wintering well so far this Winter. I had 14 colonies of bees last Spring, doubled my number, and took about 1,500 pounds of surplus honey, with plenty of stores in the hives for Winter.

J. M. Carr.

Harvard, Nebr., Feb. 22, 1892.

Alighting of Swarms.

The first swarm I had last Summer, after flying around sometime, finally alighted on an old robin's nest that was in plain sight, so I took two pieces of old black cloth, and went to an apple tree and a cherry tree and wrapped it around some limbs so as to make a bunch about half as large as a man's hat. The next 3 swarms that came out alighted on them. This was all I had. I believe it a perfect success, but as this is the only trial I have had, I cannot tell certainly. It will be a great benefit to every man that has a swarm to hive, if he can get them to alight to suit him, as mine have so far.

H. C. Gifford.

Morris, Ills., Feb. 24, 1892.

Naphthaline for Foul-Brood.

Dr. Miller, in a late Bee Journal, said that he wanted some one to try naphthaline, if bee-keepers in England said that it would prevent foul-brood. I have been trying to get it, but our drug-store keepers know nothing about it. Will the Doctor please tell us where to get it? I have 3 or 4 diseased colonies every year, and will try it, if I can get it.

C. W. Leah.

Spanish Fork, Utah.

[That it could not be readily obtained in Utah is not surprising. It is on sale here. It is used also for destroying moths. Balls made of it are put into closets, drawers, etc., and the moths will "give it a wide berth." We greatly dislike its perfume. There are two kinds—the commercial naphthaline can be bought for about 10 cents per pound, but the imported is a pure article, put up in packets containing one ounce, and sells at 50 cents.—Ed.]

It is so Good.

The Illustrated Home Journal is received. I am glad I found your advertisement. I am much pleased with the Home Journal. It is so good, that I do not think I will do without it any more.

Mollie Webster.

Hygiene, Colo.

Josh Billings said: "Self-made men are 'most alwuz apt to be a leetle too proud uv the job."

Wavelets of News.

Things Worth Remembering.

Do not be frightened if you find considerable of a brownish powder dropped on the floor board of your hives under the combs. It is the chippings that the bees throw down when they uncap the honey.

If the snow covers up your hives, I do not know that I would dig them out. At least not as long as there is no thaw, and the snow is in its naturally loose condition. If it thaws and then freezes, closing the entrance with ice, then it is better cleaned out.

A space under frames in Winter—even as much as 2 inches—is growing in favor. It is good out or in doors. It keeps the entrances from being clogged, and seems to be a benefit otherwise, perhaps allowing the bees better air.

The Winter entrance should always be as large as in Summer. Mine in the cellar are about four times as large as in Summer. That gives plenty of chance for the moisture and impure air to pass out and pure air to come in.—C. C. MILLER, in the *National Stockman.*

Bees as Messengers.

Where will the imagination of inquiring thinkers ever stop? We already had carrier pigeons, swallows as harbingers, now we have bees and wasps as messengers. A bee-keeper of the Gironde, M. Teynac, formed the idea of ascertaining whether insects might not be capable of performing, within a small radius, what bees do at a great distance, namely, carry messages. Experiments are always interesting.

Numerous observations have established the fact that if bees are enclosed in a box, or other receptacle, and carried to a distance of from two to three miles from the hive, and of the bees which have regained their liberty, will soon take flight in the direction of their hive. Those more rapid than the rest will traverse the intervening space in 20 or 25 minutes, which corresponds to a speed of about 8 miles an hour.

Starting from this fact, M. Teynac has led the way in the introduction of carrier bees. Suppose the owner wishes to initiate intercommunication with a person several miles off. He will first send him a small hive for conveying the bees. It is a box with a cover of wire netting, provided on one side with small holes that can be closed with a hinged lid. The bees are put in through these holes. The little box is so light that it can be sent by post. On reaching their destination, the insects are set free in a room provided with honey for their use. While the bee is regaling itself, a minute dispatch, prepared beforehand, is fixed on its thorax. This dispatch is a light and short leaf of paper, split with a chisel, so as to form two feet, which are coated with isinglass.

The bee is seized, and the paper applied quickly, so that the glue touches neither the head nor the wings. After this the insect is set at liberty, and it unhesitatingly sets off in a direct line towards its former domicile. There it meets with an unexpected obstacle. In front of the doorway of each hive a small tin box has been placed, which is pierced on one side with holes just large enough to allow a single bee to pass through. But the latter, embarrassed by the dispatch which it bears on its back, like a rigid wing, makes unavailing efforts to pass through. It is obliged to wait until it is relieved of its burden. In this way M. Teynac has several times successfully experimented.—*British Bee Journal.*

Convention Notices.

UTAH.—The Utah Bee-Keepers' Association will hold its annual convention in Salt Lake City, Utah, on April 7, 1899.
JOHN C. SWANER, Sec.
Salt Lake City, Utah.

COLORADO.—The Spring meeting of the Colorado State Bee-Keepers' Association will be held in Golden, Colo., on April 21, 1892.
E. B. PORTER, Pres.
H. KNIGHT, Sec.. Littleton, Colo.

TEXAS.—The 14th annual meeting of the Texas State Bee-Keepers' Association will be held at Greenville, Hunt Co., Tex., on Wednesday and Thursday, April 6 and 7, 1892. All interested are invited. A. H. JONES, Sec.
Golden, Wood Co., Tex.

PENNSYLVANIA.—The tenth semi-annual meeting of the Susquehanna Co. Bee-Keepers' Association will be held at Bullard's Hotel in Brooklyn, Pa., on Thursday, May 5, 1892, at 10 a.m. All are cordially invited.
Harford, Pa. H. M. SEELEY, Sec.

The latest edition of "Bees and Honey" is received. It is a gem in literature, and I consider it the finest work on the subject extant. The portraits are alone worth the money. The magnificent engravings are the wonder of the old-time bee-keeper.—S. J. Youngman, Lakeview, Mich.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

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Special Notices.

☞ Send us *one new* subscription, with $1.00, and we will present you with a nice Pocket Dictionary.

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☞ Systematic work in the Apiary will pay. Use the Apiary Register. It costs:

For	50 colonies (120 pages)	$1 00
"	100 colonies (220 pages)	1 25
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☞ As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.

YOU NEED an Apiary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for $1.25; or for 200 colonies for $1.50. *Order one now.*

Supply Dealers desiring to sell our book, "Bees and Honey," should write for terms.

We Club the American Bee Journal and the Illustrated Home Journal, one year for $1.35. Both of these and Gleanings in Bee Culture, for one year, for $2.15.

If You Have any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time.

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

When talking about Bees to your friend or neighbor, you will oblige us by commending the BEE JOURNAL to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the Convention Hand-Book, by mail, postpaid. It sells at 50 cents.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club.*
The American Bee Journal	$1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	2 00	1 75
The Apiculturist	1 75	1 65
Canadian Bee Journal	1 75	1 65
American Bee-Keeper	1 50	1 40
The 7 above-named papers	6 00	5 00
and Langstroth Revised (Dadant)	2 40	2 25
Cook's Manual (1887 edition)	2 25	2 00
Quinby's New Bee-Keeping	2 50	2 25
Doolittle on Queen-Rearing	2 00	1 75
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 50	1 40
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
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History of National Society	1 50	1 25
American Poultry Journal	2 25	1 50
The Lever (Temperance)	2 00	1 75
Orange Judd Farmer	2 00	1 75
Farm, Field and Stockman	2 00	1 75
Prairie Farmer	2 00	1 75
Illustrated Home Journal	1 50	1 35
American Garden	2 50	2 00
Rural New Yorker	3 00	2 25
Nebraska Bee-Keeper	1 50	1 35

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

◆

If You Want to know how Queens are fertilized in upper stories, while an old Queen is laying below—how to *safely introduce* Queens at any time when bees can fly—all about different bees, shipping Queens, forming nuclei, multiplying or uniting colonies, etc.—send us $1.00 for "Doolittle's Queen-Rearing;" 170 pages; bound in cloth, and as interesting as a story.

◆

Winter Problem in bee-keeping; by G. R. Pierce, of Iowa, who has had 25 years' experience in bee-keeping, and for the past 5 years has devoted all his time and energies to the pursuit. Price, 50 cents. For sale at this office.

The Convention Hand-Book is very convenient at Bee-Conventions. It contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee-Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with Subjects for Discussion. In addition to this, there are about 50 blank pages, to make notes upon, or to write out questions, as they may come to mind. They are nicely bound in cloth, and are of the right size for the pocket. We will present a copy for one new subscription to the BEE JOURNAL (with $1.00 to pay for the same), or 2 subscribers to the HOME JOURNAL may be sent instead of one for the BEE JOURNAL.

◆

When Writing a letter be sure to sign it. Too often we get letters with the name of the post-office, but no County or State. One such came recently, and we looked into the Postal Guide and found there were places by that name in 13 States. Be sure to stamp your letter, or it may go to the dead letter office, in Washington, D. C.

◆

The Honey-Bee; Its Natural History, Anatomy and Physiology. By T. W. Cowan, editor of the *British Bee Journal*, 72 figures, and 136 illustrations. $1.00. For sale at this office.

◆

I Know an advertiser, says the *Shoe Recorder*, which took 10 per cent. of last year's profits and invested it in advertising. That is a good idea, and one that pays well.

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A Nice Pocket Dictionary will be given as a premium for only **one new** subscriber to this JOURNAL, with $1.00. It is a splendid little Dictionary—just right for the pocket. Price, **25 cents.**

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Trip-Hammer advertising is the kind that creates industries that make us marvel at their magnitude. How long would it take to shape the hot iron if a stroke was given this week and another six months hence? Constant pounding is what does the business.

HONEY AND BEESWAX MARKET.

CHICAGO, Feb. 27.—Fancy white comb selling at 16c.; other grades 10@14c. Extracted slow demand. 6½@7½c. Beeswax, 26c.
S. T. FISH & CO., 189 S. Water St.

NEW YORK, Feb. 27.—Little demand, sufficient supply. We quote: Fancy white 1-lbs., 13@14c.; off grades, 11c.; buckwheat, 9c.—Extracted, California, white clover and basswood, 7@7½c.; Southern, 65@70c. per gallon. Beeswax, very scarce at 28@29c.
HILDRETH BROS. & SEGELKEN,
28-30 West Broadway.

KANSAS CITY, Mo., Feb.27.—Demand slow, and market well supplied. White comb, 1lb. 14@15c; dark, 9@12c. Extracted — White, 7½c; dark, 5@6c. Beeswax, is in light supply, and demand good, at 23@26c
CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI, Feb. 27.—Trade is quiet. Extracted, 5@8c. Choice comb honey, 14@16c. Beeswax is good in demand, at 23@25c for good to choice yellow.
C. F. MUTH & SON,
Cor. Freeman & Central Aves.

NEW YORK, Feb. 27.—Demand for honey is small, with adequate supply. We quote: Fancy 1-lb. clover, 14c.; fair, 10@11c Buckwheat, 8@9c. Fancy 2-lb. clover, 11c.; fair, 9@10c.; buckwheat, 7@8c. Extracted, clover, 7c. lb.; buckwheat, 6c. Beeswax, fair demand, 28@30
CHAS. ISRAEL & BROS., 110 Hudson St.

KANSAS CITY, Mo., Feb.27.—Demand poor, with large supply of comb. We quote: Comb —1-lb. fancy, 15@16c; dark, 12@13c. Extracted—White, 7@7½c; dark, 5@6c. Beeswax —None in market; light demand.
HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, Feb. 27.—The demand for comb-honey is fair and supply moderate. We quote: Comb, 12@13c; extracted, 7@8c. Beeswax in good supply, and light demand, at 25@26c.
M. H. HUNT, Bell Branch, Mich.

CHICAGO, Feb. 27.—Demand good and supsufficient. We quote: Comb, 14@16c. Extracted, 6@7c. Beeswax, in light supply, and good demand, at 25@27c.
J. A. LAMON, 44-46 S. Water St.

MILWAUKEE, Feb. 27.—Demand fair and supply good, except of the best quality. We quote: Comb—choice, 1-lb., 15@16c; fair, 13@14c; dark, 10@12c. Extracted—white, in barrels or kegs, 7½@8c; dark, 6@6½c. Beeswax, 23@28c.
A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO, Feb. 26.—Demand good, supply small. We quote: Comb, 1-lb., 10@14c. Extracted, 5½@6½c. Beeswax, in light supply and good demand, at 23@25c.
SCHACHT, LEMCKE & STEINER,
16 Drumm Street.

MINNEAPOLIS, Minn., Feb.27.—Demand is moderate, supply ample, and shipments coming in freely. We quote: White comb, 17@18 cts.; dark, 14@15c. Extracted, 10@10½c.
STEWART & ELLIOTT.

CHICAGO, Feb. 27.—Demand is now good supply is not heavy. We quote: Comb, best grades, 15@16c. Extracted, 6@8c. Beeswax, 26@27c. R. A. BURNETT, 161 S. Water St.

BOSTON, Feb. 27.—Demand is light, supply ample. We quote: 1-℔. fancy white comb, 14@15c; extracted, 6@7c. Beeswax, none in market.
BLAKE & RIPLEY, 57 Chatham St.

ALBANY, N. Y., Feb. 27.—Demand is slow, supply not liberal, as stock is mostly in. We quote: White comb, 12@15c; buckwheat and mixed, 8@12c. Extracted — Light, 7@7½c; dark, 6@6½c. Beeswax—Supply light, and demand steady, at 28@29c.
H. R. WRIGHT, 326-328 Broadway.

NEW YORK, Feb. 27.—Demand is light, and supply large, except buckwheat comb. We quote: Fancy white comb, 12@14c; buckwheat, 9@11c. Extracted—Clover and basswood in good demand at 6½@7c; buckwheat ind emand at 5@6c. Beeswax in fair demand at 26@28c.
F. I. SAGE & SON, 183 Reade St.

NEW YORK, Feb. 27. — Demand moderate, and supply reduced, with no more glassed 1-℔ nor paper cartons, 1-℔. We quote: Comb, 1-℔, 14@15c. Extracted—Basswood, 7¼@7½c; buckwheat, 5½@6¼; Mangrove, 68@75c per gal. Good demand for dark extracted honey. Beeswax, in fair supply, with small demand, at 26@27c.
F. G. STROHMEYER & CO., 122 Water St.

Supply Dealers should write to us for wholesale terms and cut for Hastings' Perfection Feeders.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

WANTED—A No. of Colonies of Bees, Italians preferred. J.B.Stone, South Park, Kan
10A2t

WANTED—An agent in every county for our New "St. Joe Hive." St. Joseph Apiary Co., St. Joe, Mo. 10Atf

WANTED—Bee-keepers to send for my price and samples of Comb-Foundation.
JACOB WOLLERSHEIM, Kaukauna, Wis.
1Atf

WANTED—A situation in an apiary or hive manufactory. I am willing to make myself generally useful. J. W. TEFFT.
5Atf 318 Swan St., Buffalo, N. Y.

WANTED—To exchange Bees, Honey and Supplies for Cash or Tinners' Tools.
J. A. BUCKLEW, Warsaw, Coshocton Co., O.
5Atf

WANTED—A situation in an apiary by a person of considerable experience.
W. O. SCHOLL, Wellsville, Franklin Co., Kan.

TO EXCHANGE—A 10-inch Pelham Foundation Mill, in No. 1 order, for offers or cash. Write for Circular of Bee-Keepers' Supplies. JNO. NEBEL & SON, High Hill, Mo.
10A3t

THE AMERICAN BEE JOURNAL
CIRCULATES
ALL OVER THE WORLD.
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THOS. G. NEWMAN & SON,
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ONE DOLLAR PER YEAR.

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THOMAS G. NEWMAN,
EDITOR.

Vol. XXIX. Mar. 10, 1892. No. 11.

Editorial Buzzings.

As the Babbling brook goes rolling
Onward day by day,
Whiter grow the little pebbles
That lie in its way.

As the Springtime sun grows stronger,
Bud and leaflet grow,
And at length in flower and blossom,
All their beauty show.

◆

Ivar S. Young, editor of the bee-paper of Norway, who visited America in 1887, died at his home in Christiania, Norway, on Dec. 10, 1891. He was nearly 55 years of age, and was one of the best bee-keepers of that country.

◆

A World's Fair Bee-Keepers' Convention is pretty generally desired. The *Canadian Bee Journal* endorses the move, and urges the appointment of a committee to take charge of the matter at once. Shall we have such a convention—open to the world?

The Board of Lady Managers of the World's Fair have appointed the following as a committee on "Bees and Bee-Culture:"

Mrs. Charles H. Olmstead, chairman, Georgia; Mrs. James R. Doolittle, Chicago; Mrs. Eltza J. P. Howes, Michigan; Mrs. Mary C. Cantrill, Kentucky; Mrs. Frances W. Shepard, Chicago; Miss Phœbe W. Couzins, Missouri; Mrs. Walter Hartpence, Ohio; Miss Mary E. McCandless, Pennsylvania; Mrs. Edward L. Bartlett, New Mexico; Mrs. Parthenia P. Rue, California.

Until a Superintendent is appointed for the Apiarian Department nothing definite can be arranged, and no progress can be made. Perhaps it will come out all right, but the outlook is not now very encouraging.

◆

Utah bee-keepers are now enjoying the benefits of organization. The *Intermountain* for March makes these remarks on the subject:

> The bee-keepers of Utah have taken a noteworthy course, by forming a territorial association; the effect of such is being felt throughout the territory already. With the same amount of energy in proportion to its age, five years from now it is hard to tell what the result will be; suffice it to say that it is a very healthy youngster. Every bee-keeper in Utah should become a member; the entrance fee and yearly dues are only 50 cents, which should be sent to the Secretary.

◆

Talk About the large bee of Java—*Apis dorsata*—and then think of the model just imported from Paris. It is 6 feet long, and more than that length from tip to tip of extended wings. You will be amused while reading the description of this wonderful model given on page 352 of this issue.

◆

The Busy Bees, and How to Manage Them, is the title of a 24-page pamphlet by W. S. Pouder. It is intended as a 10-cent manual for those who may catch the "bee-fever." It is nicely printed, and is well worth the price.

Strange Freaks sometimes occur with bees. The following letter from Mr. E. B. Kauffman, of Brickerville, Pa., describes some of such freaks:

> On Feb. 19 it was warm enough for bees to fly a little. I have one colony alone in the garden, to which I had introduced a young queen last Summer. At about noon on Feb. 19, it was warm, and the bees flew some. I then noticed that there was something wrong in that hive; the bees were very excited, and ran in and out. I tried to ascertain what was the matter, but did not succeed. They continued such actions until evening. The next day, about noon, I noticed a similar excitement among them, when I again tried to find out what was wrong. To my surprise I found the queen outside, a little way from the entrance, or near the place where she would have dropped from the alighting-board. I picked her up, and took her into the house; she was apparently dead. I tried to resuscitate her by heat. After a little while she began to move, and stood on her feet. I brought some bees in and put her with them under a glass tumbler, and gave them a little honey. The bees seemed to nurse the queen just like children would a sick mother, but on the day following she was dead. Now, what I would like to to know is, what induced the queen to leave the hive in Winter? Had she been dead, I would have supposed that the bees dragged her out, but as it is I do not understand it. Will some of the experienced bee-keepers tell me through the Bee Journal what was the trouble? I examined the hive, and found that they had plenty of stores, and seemingly everything was in good condition.
>
> E. B. Kauffman.

As the queen mentioned came from Mr. Doolittle, we requested him to reply to it, and here it is:

> Some of these strange freaks of our pets are hard to account for. Twice in my life I have had queens leave the hive to die, just the same as worker bees always do, when the weather or circumstances will permit. At other times I have had workers so worry and tease a queen that she will run out of the hive and die rather than submit to that torture.
>
> Very many times, if not always, the workers seem to know when a queen is about to die from old age or disease, and, although manifesting the greatest alarm and agitation, as a whole colony, a few of the workers will proceed to drag the dying queen out of the hive and push her off the alighting-board to die. Sometimes she is thus left to die alone; but, oftener, a few of the "faithful ones" will stay by until she expires, and sometimes remain for hours after.
>
> One Spring I lost nearly one-third of my queens in this way, and as this was years ago when I had black and hybrid bees, I was prone to lay the trouble to the kind of bees; but I have since learned that all queens, of all races, are subject to death at any time; though, as a rule, most of them do average good work until the end of the third season.
>
> My experience with queens received from abroad proves that they are more liable to give out suddenly, than those which are never subjected to the rough usage all queens must endure by a long shipment in the mails or otherwise.—G. M. Doolittle.

◆

The Amateur Bee-Keeper is the name of a new pamphlet of 52 pages, by J. W. Rouse. As its name implies, it is a guide-book for beginners, and covers the whole ground of bee-keeping in such a pleasing style that it will prove a very valuable help to such, if they will but read it, and practice the methods therein described. It is published by the Leahy Mfg. Co., Higginsville, Mo., and can be obtained at this office. Price 25 cents.

◆

Catalogues for 1892, are on our desk from—

John Andrews, Patten's Mills, N. Y.
G. H. Kirkpatrick, Union City, Ind.
J. W. S. Rupe, Mt. Vernon, Ills.
A. A. Weaver, Warrensburg, Mo.
Oliver Foster, Mt. Vernon, Iowa.
W. H. Laws, Lavaca, Ark.
J. E. Shaver, Friedens, Va.
Levering Bros., Wiota, Iowa.
E. H. Trumper, Bankers, Mich.
M. Crawford, Cuyahoga Falls, O.
I. F. Tillinghast, La Plume, Pa.

The Changes that this wonderful planet of ours daily undergoes are very interesting to contemplate. A correspondent describes some of them in the following very interesting manner:

During the approach and continuance of winter the earth throws off by radiation each night more heat than it absorbs in the daytime. While this goes on the temperature of the surface of the earth must continue to fall, and the cold of the atmosphere must penetrate deeper and deeper daily into the ground. As spring approaches the condition changes, and each night less heat is radiated than is absorbed during the day. The average temperature of the earth is therefore steadily rising instead of falling, and opportunity is given to the latent heat of the earth to manifest its influence; for, next to the primal source of heat—the sun—a very important source is found in the heat of the globe itself. While the surface is still frozen, therefore, and has not yet absorbed a sufficient surplus of heat to overcome the effect of the nightly loss by radiation, the ground may yet be thawing rapidly and perceptibly from below through the influence of the earth's latent heat.

* * *

Punctuality in doing anything required to be done is the most desirable thing in the world. Think of what a calamity it would be if the sun should make its appearance an hour or two, or even a minute or so late some day. Whatever is worth doing at all, is worth doing well and on time.

To apiarists this is a lesson of vital importance. The delay in not having all surplus receptacles on hand when wanted often costs a crop of honey. Very appropriate is the following from one of our subscribers in Iowa, who writes the following very amusing item:

An acquaintance once said: "Mrs. A. would be quite a nice neighbor if it were not for that third hand." I stared in wonder." "Don't you know," queried Mrs. A., that "little behind-hand of hers keeps her forever in a stew?"

Knowing Mrs. A., I saw the application, and then I began to wonder if some of the rest of us were afflicted with the superfluous hand, as well as Mrs. A.

Have we all got our Summer underclothing all made before the time for house-cleaning comes? Did we plant our slow-growing seeds in season? Did we replenish our table linen and bedding during the Winter months? If not, let us look out, or somebody will be laughing at our third hand. We won't laugh, however; as the saying goes, "the laugh will be on the other side of the face."

Kit Clover.

* * *

We are Often Pained when seeing the oft-repeated cruelty and inhumanity which daily come to light in this world, and then we are led to fancy that a cruel and heartless humanity has complete control of all mundane affairs, but it is evidently a mistake to come to such a hasty conclusion. We must, to be fair, look on the other side, and then we may change our pessimistic for optimistic views.

It is a good world this, after all. If it were not, then little Marie Petersen, a blue eyed child of five years, could never have crossed the Atlantic ocean and come from Sweden in charge of no one but herself to join her father in Philadelphia. Her mother died when she was a babe, and her father came to America to make his fortune. As soon as he got a little money he sent for the child, and the brave creature did not hesitate to start alone. It was the confidence of childhood and innocence, and to the credit of mankind it is not always betrayed. Marie spoke not a word of English either, and the only information the immigration officers at New York could get about her was contained in an envelope which she carried sealed in her pocket. This envelope held also a little money to be used in case of need, and thus the child had crossed the great sea under the guidance of the good spirits that reside in human breasts.

* * *

A Welcome monthly visitor is the Illustrated Home Journal, a fine publication for the family and fireside, devoted to fashion, music, household topics, decorative art, and interesting stories.—*New Bedford, Mass., Standard.*

Queries and Replies.

Packing and Marking Shipping-Crates.

Query 809.—1. What is the best way to pack sections in a shipping crate? 2. What are the best directions to be written on the crate, to insure careful handling by the freight or express companies?—Iowa.

Have had no experience in shipping honey.—A. B. Mason.

1. Four in length; 6 in width. 2. *Glass*, GLASS, GLASS! *Honey in glass!*—Dadant & Son.

1. Pack snug and tight, so the combs cannot strike. 2. "This is dynamite."—J. M. Hambaugh.

1 and 2. These questions can be better answered by those who produce honey for market, which I do not.—J. E. Pond.

1. They will bear more knocking about when resting on the tops. 2. Comb-honey — handle with care.—M. Mahin.

1. Upside down when they are not well fastened to the bottom. One tier high. 2. Leave the glass exposed. If they forbid that, write on "Dynamite. This side up with care."—P. H. Elwood.

1. I do not know, as I never shipped any comb-honey. We produce all extracted-honey, except a little comb-honey for our home market.—E. France.

1. I place them in the crate in the same order they occupied in the hive, as nearly as I can. 2. Use stencil for the directions. I mark: "Contents fragile. Handle with care."—J. P. H. Brown.

1. Fourteen sections in a crate, glassed at one end. 2. Direct in the shipping-bill that the crates must be put crosswise of the car, and so secured that they cannot fall. Never ship by express.—R. L. Taylor.

1. What do you mean? Side by side, or how? Generally speaking, the same as they set on the hive. 2. Leave the honey so it will show through glass. This is better than any written directions.—G. M. Doolittle.

1. Have one side of the shipping-crate glassed, and put the side of the section to the glass. If the sections are loose in the case, pack paper between them and the side of the case, to keep them firm, and act as cushions to break all jars and jolts on the cars. 2. I do not think any is needed, or will do any good, for if there are directions, the chances are that they will never be read.—S. I. Freeborn.

1. With the comb next to the glass. 2. I do not believe it makes any difference. My assistant suggests "Dynamite." The honey showing through the glass will do more to make railroad hands careful than anything written on the crate.—C. C. Miller.

1. Combs parallel with glass. Glass parallel with handle of the shipping crate. 2. I use a label 10x14 inches, having on it a large "fist," and in large type the words, "Fragile. Handle with care. Load with hand pointing toward end of car or side of wagon."—J. A. Green.

1. Lay a strong paper in the bottom of the crate, which should be deep enough to allow ¼-inch strips for the sections to rest upon, and holding 24 sections, single tier high. Wedge at the back to hold them firm and solid. 2. The printed "caution" labels on purpose for shipping.—Mrs. J. N. Heater.

1. I prefer to fit them in the crate lengthwise of the crate. Fit them closely so that they cannot jostle about in the crate. The rest will suggest itself. 2. Freight-smashers never look at written or printed directions. Glass sides to the crates showing the honey to the handlers is the best protection.—G. W. Demaree.

1. Have your crate just fit the number of sections you wish it to hold. 2. I do not know just what is *best*. But "Honey—With Care," answers my purpose. I would not think of trusting comb-honey with any express company. It will go by freight better and much cheaper.—H. D. Cutting.

1. Have the crate of the right size to hold the desired number, and drop them in, after cleaning them of all propolis and burr-combs, if any. 2. Write no directions whatever on the crates; have a glass at each side or end of the crate (the sides of our sections come to the end of our crate or case). For safety, ship by freight rather than express.—James Heddon.

1. First, get the honey, then pack *snugly*, the point being that there should be no play between sections, or between

sections and crate. Have the outside rows as good as any, but endeavor to have the crate throughout as even as possible in quality, color, etc. 2. Ask some railroad man, but exercise your own judgment about his answer.—MRS. L. HARRISON.

1. Pack them so they will not rattle around "like a handful of peas in a quart cup." The case should be just large enough to hold the sections, whatever the number. A pan made of wrapping paper to catch any leakage, and a thickness or two of newspaper over the sections, is an advantage.—C. H. DIBBERN.

1. To set them in a neatly fitting crate is as good a way as to use packing, in my opinion. 2. What I regard of more importance is, that every crate be properly labeled, so that freight men may know the nature of package at a glance. The right word to print on the label is "Fragile," and the letters should be about 1¾-inch block letters.—G. L. TINKER.

1. As I never shipped comb-honey in sections, I do not know; however, I would not use a crate holding more than 24 one-pound sections, and pack them so that there would be no shake to them. 2. I think the kindest request we can make the better, and always begin it with a "Please;" for by experience I have found that we can persuade or lead our railroad men better than to drive them (or almost any one else). If I should ship honey, I would say something like this: "Please handle this honey with care, for it is very tender. By so doing you will greatly oblige your friend—Jennie Atchley."—MRS. JENNIE ATCHLEY.

Pack the sections bottom upwards, close together in single tier, parallel with the glass, so as to show what it is. Label the covers of the crates "Handle with Care—This Side Up," with a request to have them placed securely in the car, with the combs parallel with rails. Send by freight. It is much cheaper than express, and will be just as carefully handled.—THE EDITOR.

Open ye everlasting gates. swing wide !
Here comes a soul. a woman of sad face ;
She was a servant. did her best and died.
A loving benefactor of her race.
Then came the love and joy the blessed win,
And more than conqueror did she enter in.
—JAMES B. WIGGIN.

Topics of Interest.

Temperature of Bees in Winter Quarters.

C. W. DAYTON.

Last October I prepared 4 colonies for Winter by contracting the brood-chamber to 6 combs, and putting on a solid inch thick honey-board, and letting the bees seal them down tightly. The latest flight the colonies had was on Nov. 16, and they were carried into the cellar on Nov. 20, where the temperature ranged from 32° to 40°. Fifty thicknesses of paper were spread over each honey-board.

After they were placed in the cellar they remained very quiet, but towards the last of January the honey-boards began to become concave on the upper sides by warping, and there came cracks between the lines of propolis at the edges so that I could look in and watch the actions of the bees. The bees remained absolutely quiet. I could see their bodies projecting above the top-bars, but there were no bees clinging to the cover board.

There were indications of moisture present in the form of large drops of water here and there on the cover, and also on the combs. This was the cause of the warped boards. By inserting the bulb of a thermometer into the cracks, and letting it drop down amongst the bees at the top of the cluster it indicated 61°. When the crevices were entirely stopped with paste so that no air could escape, the temperature remained at 64° in one colony, and 61° in another, and another 65°.

By the 10th of February, with the paste removed, I saw moisture attached to the honey-board the whole width of the hive, just over the cluster where the bodies of the bees could be seen projecting above the frames, bringing the bees and moisture within ¼ inch of each other.

Here were the tightly-sealed covers, and comparatively no covers to the brood-chambers, with a difference between the two modes of only 3°. If this is the real temperature of healthy bees, I wish to inquire where the force is to come from that produces a circulation outward through the entrance situated at the bottom of the hive. The idea that a healthy colony will keep the inside of the hive warm and dry from their natural warmth is a mistake, and exists nowhere except in the imagination and theory. The thermometer does not reveal any such fact.

Now, I do not say that there are *no* colonies which will not show this amount of warmth; indeed, it was only necessary to turn my back to these tested colonies, and place the thermometer about ½ inch from the cluster of a colony which was affected with diarrhea, and the mercury jumped to 80°.

Seeing that these colonies were doomed to destruction from the accumulation of moisture, they were carried out of the cellar into a bee repository where the temperature has not yet been down to 50°, or above 65°; usually standing at 62°.

When I lifted the boards and papers off the hives, water literally ran off from them, and the hives showed that moisture had condensed on the combs and inside of the hive, so as to run down and soak through the joints at the bottom.

Two hours in a temperature of 62° rendered the hives dry. The brood-chambers remained uncovered for awhile, and then there was spread over them two thicknesses of newspaper.

To this covering one of the colonies objected, and manifested their intentions by getting uneasy and gnawing three or four holes in the papers, directly above the cluster of the bees, and a nice cluster of bees came up above the paper, and then the colony became very quiet. In the three or four days following this the temperature was lowered from 62° to 56°, and all but 3 or 4 bees of the cluster had retired to the inside of the papers.

On account of some manipulations I wished to make with some other colonies, I continued to lower the temperature toward 50°, and as these bees had gone inside the hive, I thought a lower temperature would be cold on them, and I accordingly laid on the top of the papers a new ½ inch pine board that was warped so as to leave a space under it like a Hill's device.

In lowering the temperature it was necessary to be absent about two hours; when I returned and was surprised to find this colony (previous, so still) now making a great uproar. On raising the board it was found to be warped exactly the opposite from what it was when put on, and hundreds of bees crowding in under it, and the paper had been removed for a space larger than my hand. The board was set on one edge against the hive, and there was immediately began the contented hum, and march back into the hive.

Although I brought a bright lamp and set it on one corner of the hive, only one or two bees paid any attention to the light. The temperature was then 52°. When the bees had become settled a piece of writing-paper was laid over the hole the bees had now made in the papers, and it was soon torn, and as the bees went at it in great force, it was crowded entirely out of the way, and the bees went back amongst the combs and became quiet, and did not enlarge the hole they had made in the paper.

One thing of importance noticed, when the bees were in this uneasy state, and trying to remove the cover was, that quite a number of bees, perhaps 50 or 75, crawled out on the cover papers, away from the rest of the bees and dropped their excrement, just as the bees in a diarrhetical colony will crawl upward above the entrance to the hive and void the same.

There is a peculiar motion to the individual bees when they leave the cluster for this purpose—they seem to have only one idea or thought, which is to get out and separate from the rest of the bees. They came threading their way through, turning this way and that, to get past other bees, while the main throng were marching the other way, keeping up a joyful hum. They appear about as heedless (or, perhaps, as headless) as people escaping from a burning building.

After evacuation, they remained motionless as if contemplating whether to wander further away from the hive and die, or return and undertake to live in it again. Hearing the hum of contentment set up by the other bees, they would turn their heads to one side and then to the other, and then scrambled back toward the brood-combs quite lively.

The bodies of these bees were not excessively distended. They could take wing easily and fly all around the room. Now the question comes up: Was this diarrhea, or healthy evacuation of the intestines?

It looks to me as if there was some kind of atmosphere in the hives that caused it, and that the board and paper I laid on caused it to accumulate in the top of the hive. The entrance, ½x16 inches, was wide open. Our, supposed to be, best authorities say that "noisome gases and vapors escape at the *bottom* of the hive." When the coverings are removed, the stench from the colonies *rises* to one's nostrils.

It looks as if this may have been a healthy colony. Still it would have been charged as being afflicted with diarrhea. I have noticed some diarrhetical appearing colonies which seem to be in bad condition, that lived until Spring and then built up to good colonies. Other times they soon dwindled out in spite of all that could be done. One seems to be tenacity to life, and the other tenacity to death; yet they are mistaken for the same sort of affection.

As I was about to close this article the thought came to me to test the temperature of this colony in both its quiet and disturbed conditions. On going to the colony, now, after it had been quiet five days, I found the thermometer where I had left it above the cluster, lying on the top of the brood-frames, with bees on both sides of it, and two or three around the bulb, and it registered 59°. When it was raised ½ inch above the frames it was 58°. Another thermometer which leaned against the hive and rested upon the floor of the repository registered 57°. Four feet above the floor it registered 60°. Twelve hours ago it was 64°.

Not disturbing the thermometer lying on the frames, a piece of newspaper was quietly laid over it, and then several thicknesses of quilts over the paper. After ten minutes the mercury had risen from 59° to 61°. At the end of 45 minutes it was 68°, with considerable excitement. At 75 minutes, it marked 78°, and was still on the rise, and the quilts and paper were taken away.

Two healthy colonies were tested under quilts, and in one the temperature was 63°, and in the other 61°. Two colonies which were afflicted with diarrhea three weeks ago, and kept up an uproar for ten days before they were set in the warm repository, are now comparatively quiet, and the temperature under the quilts was 64° in one, and 66° in the other. One of them objects to any covering to the brood-chamber.

As Mr, Muth speaks on page 191 of being tired of speculative articles, and having advanced more or less theory in some former communication, in this I have intended to deal with facts only.

Clinton, Wis., Feb. 23, 1892.

Skunks in the Apiary.

A. F. BROWN.

For the benefit of those who are troubled with skunks about the apiary, I should recommend a little "strychnine" beat up in an egg, as the most satisfactory means of destroying them. Ten cents worth in a couple of eggs will get rid of all the skunks in the neighborhood.

I think it will be found to be a much more satisfactory method than fussing with a half dozen (more or less) traps, as recently recommended by a correspondent. For not one man out of a dozen would kill a skunk with a shotgun, as recommended by another correspondent, without perfuming the whole neighborhood with the musk from the skunk. But when using strychnine, there is no such danger of "advertising" one's work.

I used to hunt and trap for the trade a good deal, and as skunks' pelts brought good prices, I made a special study of their habits, and the best means of killing them. From my experience I would say, as a hint to those who prefer to use the "shot-gun," to always shoot the "skunks" through the *middle of the back*, and then there will be no danger from there musk.

Another very satisfactory way, where you have one in a trap, and are near water, is to drown the skunk. By the means of a fishing-pole 15 or 20 feet long, slip the chain off from the stake, and lead the skunk right out into the water; when out beyond its depth, draw it under the water, and the job is finished. Work carefully, and you will have no trouble.

There is not a particle of danger of being "perfumed," as a friend puts it, if you work carefully and take your time to it.

To the novice at this work, I will say that more than once have I taken skunks out of both steel and box traps with my hands, and I never had the first bit of trouble.

Huntington, Fla., Feb. 14, 1892.

Grading of Comb-Honey, Etc.

M. H. MANDELBAUM.

About thirty members of the Northwestern Association were in attendance at the convention in Chicago, and that so small a proportion should be able to draft a set of faultless resolutions, seems improbable. On the last day, in fact the last two hours before adjournment, the resolutions on grading of honey were adopted. Our President, Dr. C. C. Miller, then congratulated us on having accomplished so much.

The resolutions were referred to Albany for revision, and I, as the maker of such motion, am disappointed with the progress there made. The question arises, what shall we now do to accomplish our aim? Let us all unite and send our ideas to the bee-periodicals. We can accomplish nothing by delay, and I am of the opinion that we can gain our point before it is time to harvest a new crop.

Should not the plan be, to first adopt "grades for honey," then decide on the topics, "size of sections," "size of crates," "style of package for extracted?" etc. These four points can be argued *pro* and *con*, and our leading editors then frame their adoption.

When we have accomplished this, we are in shape to cope with such an enemy or evil as "adulteration," and seek a wider field for "uses of honey." We must seek perfection in our own midst, and then remedy outside faults. Delay is useless; so everybody, to arms.

That we may not be successful in finding perfect laws, I am convinced, but do we not grade two of our most widely handled farm products, viz.: butter and eggs? At times, not often, buyer and seller cannot agree as to grade, and arbitration then decides. This can also be done with honey.

What benefit can we derive after adopting a set of rules? Every producer and merchant could have a copy. This would prevent shipments of honey to market that are unsalable, and would permit of exact quotations. I will not advance arguments, but if any discussions are contrary, will answer and endeavor to show merit to my views.

I will divide the topic. First, grading of comb; second, grading of honey. And for the former I cannot improve on those rules adopted in Chicago, except that I would call the first grade "Fancy;" the second, "First;" and the third, "Second."

Grades for honey I would have as follows:

Extra White, being water white; *White*, being what the word implies; *Extra C.*, straw color; *C.*, being between straw and dark; *D.*, being dark.

For explanation to above key, notice the following example: An apiarist writes, "I have 10 crates of first grade white basswood, 5 crates of fancy extra C. linden, or 20 crates of second grade D. buckwheat honey." By referring to the list, we know exactly how to respond.

All of our grading will be of no avail unless producers mark on the end of the crate both quality and grade, as, for example: 1st, X. C., Linden; or, Fancy X. W. Clover.

Each package of extracted to be branded, for example: X. C., Sage; or, X. W., Alfalfa.

When the above is accomplished, and every package marked as to grade and quality, with the gross and net weights underneath, it will be a pleasure to show honey to buyers. But with no system, and every shipper using a different style of packages and sections, we have no uniformity; instead, we have extra labor that could be prevented, with but little work on the part of the producer. Let the opposition or advocates of this topic act at once, and we then are ready for the next question.—*Review*.

Chicago, Ills.

Wisconsin State Convention.

H. LATHROP.

The Wisconsin State Bee-Keepers' Association met at Madison on Feb. 4, at 10 a.m., Pres. Hatch in the chair. After the reading of the minutes, the President delivered his annual address, as published on page 287.

Discussion followed on the apiarian display at the World's Fair, and T. E. Turner, J. J. Ochsner, and Mr. Minnich were appointed to decide upon the best method of collecting the material to make a creditable display. This committee reported as follows:

1. That some proper person be appointed by the Association to arrange the honey exhibit of the State of Wisconsin for the Columbian Fair, and that the honey for the Fair be sent to his address in Chicago.
2. That surplus honey sent to him, not used in the exhibit, be left subject to the direction of each one sending the honey.
3. That each bee-keeper of the State be requested to bring a sample or samples of honey to our next annual meeting and state the amount of honey he can furnish for the Fair; and that the Executive Committee be empowered to make selections for the exhibit.
4. That the State be asked to grant $500 to defray the expense necessary to make the exhibit.

This report was adopted. The subject of freight rates was taken up with the result that the Association decided through its Secretary to request the officers of the Bee-Keepers' Union to lay our application for lower rates on extracted-honey before the Western Classification Committee.

AFTERNOON SESSION.

Mr. Kirkland, of Jefferson, and Mrs. Winans, of Janesville, were introduced as members of the State World's Fair Commission; they gave assurance that the commission would render all the assistance in their power to aid the bee-keepers of the State in making a worthy display of their sweet product at the World's Fair.

An essay on the "Mutual rights of bee-keepers" was read and discussed. It was said that while there was nothing *legally* wrong in the bee-keeper bringing bees into a field already occupied, it was, as a rule, unwise and not neighborly.

Mr. Hoffman, of Monroe, advised that bee-keepers buy up the honey offered by small producers, and thus prevent its being thrown upon the market at a low price; thus ruining the market for others.

Mr. Turner, of Sussex, said he had succeeded in educating the small producers in his locality so that they would come to him and ask what honey is worth. This he had done by offering to buy their honey when offered at a price lower than the market justified.

Mr. C. A. Hatch read an essay on "Extra Combs." He considered it very important to have a good supply of extra combs on hand, and the amount should be three extra sets of combs for each working colony, Spring count. The use of comb-foundation, he said, was an advance in bee-culture, second only to the movable frame hive. It should be used in full sheets as much as possible, to prevent the building of drone-comb. Mr. Freeborn said there were times when an extra set of extracting combs would be of great advantage to comb-honey producers; they should be placed on the hives in cases of sudden and heavy flows of honey, as the bees could not at such times build combs fast enough to receive it.

Mr. Hatch stated that the managers of the Wisconsin State Fair had offered to increase the premiums on honey from $40 to $100, and hoped thereby to induce bee-keepers to make a display worthy of the State.

The following were appointed a committee to revise the State Fair premium list: Arthur Wilcox, J. J. Ochsner and C. A. Hatch.

FRIDAY MORNING SESSION.

The Committee on Election reported, recommending the following for officers for the ensuing year:

President—C. A. Hatch, Ithaca.

1st Vice-President—Mr. Standish.

2nd Vice-President—J. J. Ochsner, Prairie du Sac.

Recording Secretary—H. Lathrop, of Browntown.

Corresponding Secretary—Dr. J. W. Vance, of Madison.

Treasurer—M. J. Plumb, of Milton.

A resolution offered by Mr. Standish that R. L. Joiner, of Wyoming, and Joseph Henderson, of Springdale, be made honorary members of this society on account of services rendered by them to the bee-keepers in connection with the foul-brood act, was unanimously adopted.

Mr. Danniher, of Madison, asked if any one could tell how to get the most surplus honey from a colony in a box-hive, without increase. This seemed to be a stunner.

Some suggested to knock the box-hive to pieces, and transfer to movable frames.

Mr. Danniher answered as follows: When the lower part of the combs in the box-hive are whitening with new honey, take a hive full of frames of empty comb, and place it on the stand occupied by the box-hive, cover it with a board, out of which a large hole has been cut; place the box-hive over this hole, and fasten up all other openings, the bees will then fill the frames in the lower hive, which can be extracted and returned. The bees will rarely swarm when treated in this way, and they are sure to winter well, having a good supply of honey in their own hive.

Mr. Danniher also stated that he was wintering a "colony of bees in a jug,'" this caused a ripple of laughter. Those present will never forget the fun and good humor caused by his quaint expressions. One thing was evident to all, he is no novice, but one who understands the bees-ness.

It seemed to be the almost unanimous decision of the convention that it was best to allow the bees to do as they pleased in regard to pollen, and not go to the trouble of removing it from the hive, as advocated by Mr. Heddon, of Michigan. In most localities artificial-pollen feeding was unnecessary.

Out-door protection in Spring was taken up. It was thought by most of the members that special out-door protection of hives in Spring would not pay for the extra expense and trouble, but that protecting the yard by high-board fences, or otherwise, would pay.

J. J. Ochsner carried off the North American Bee-Keepers' Association silver medal.

It was voted that Mr. Hatch and Mr. Turner be authorized to go to Milwaukee to confer with the World's Fair Commission in reference to Wisconsin's honey exhibit, and that the expenses be paid out of the grant from the State.

Bee-Keeping in Florida.

MRS. L. HARRISON.

Mr. Craycraft's prayer (page 82) is answered. I am spending the Winter in Florida, but as yet I have found no bee-keepers worthy of the name. All the bees that I can hear of in this town, are 8 or 10 colonies of blacks, which manage their own affairs, principally.

I am told that there are very extensive apiaries located at Wewahicthka, Fla., and I am going to visit them on my way home; if I do, I will tell you about them, and whether they produce comb or extracted-honey, and their reasons for so doing.

I have just been out in the yard with the broom, but I must confess that I could not run the handle down to water. If I had gone over to a ti-ti in sight, perhaps I might. The lady must have been mistaken.

Our party came with a livery team from Chiply, 52 miles distant, and as we passed houses, I would see bed-clothing hung out in the sun. It puzzled me to know why women should hang out their gaily-patched quilts to fade. I saw the same thing here, and on making inquiries I was told that good house-keepers habitually hung out their bed-clothes to dry out the dampness once a week.

The palings on the fence opposite keep falling off like Autumn leaves; the nails rust off. Stoves rust, and you cannot pull a pin out of a cushion. Bees may build comb here just as well as in Illinois, but I doubt very much its keeping any length of time after it is removed from the hives. I should expect that it would get watery, and burst the cells, unless kept in a well-ventilated room with fire heat. The comb-honey that I have bought here, was cut out of the top of a hive, and kept in a tin can, all broken up. It would not sell in my market at all.

I saw bees working to-day (Feb. 17) on peach-bloom. Strawberries are blooming, and the yellow jessamine is opening; I saw a vine to-day on the side of a house, and it was lovely.

Hives are very populous, and the bees are busy carrying heavy loads of pollen of a pale yellow color. I heard this evening of an apiary located three miles away, which I will visit in a sail-boat, if the wind blows in that direction.

St. Andrews' Bay, Fla.

Philadelphia Bee-Keepers' Convention.

The tenth annual meeting of the Philadelphia Bee-Keepers' Association was called to order by the President, at Philadelphia on Jan. 23, 1892. The Secretary read the minutes of the previous meeting, which were approved as read.

The President then called attention to the work which had been accomplished by the Association since its organization ten years ago, and stated that the Secretary had prepared a brief history of the Association, which he would read after the routine business had been disposed of.

He also reported a communication from Dr. C. S. Dolley, Professor of General Biology at the University of Pennsylvania, from which he hoped an opportunity would be afforded to the members of the Association for seeing the model of the honey-bee recently imported from Paris. The following is a description of this splendid model, taken from the Philadelphia *Record*:

MODEL OF THE HONEY-BEE.

"An immense honey-bee has been imprisoned in one of the rooms of the University of Pennsylvania. It is fully 4½ feet from sucker to sting, and measures nearly 6 feet from tip-to-tip of wings. This is the largest bee ever seen in this part of the country, at least, and if it could feed on clover blossoms, would make necessarily a great honey-producer, for its honey-bag is big enough to store away a whole comb. But there is little danger that it will escape from imprisonment to the fields, as it is made entirely of papier-mache. This huge imitation has been purchased for the use of the students in the Biological Department of the University. It was manufactured in Paris by an ingenious artificer, Emile Deyrolle, who is famous for being the unique constructor of such biological working models.

"The big, shiny bee is perfectly articulated, molded and jointed together, true to the busy little 'yellow-breeched philosopher' of the fields after whom it was fashioned. Wings, head, thorax and abdomen can all be disjointed by the simple surgery of thumb and finger, the head may be trepanned, displaying the small brain and physiological machinery within, thorax separated, and the abdomen disemboweled. Every organ artery, vein, fold, sinew, tissue, has been carefully reproduced in exact proportion with a delicate fidelity half lost sight of in so large a model. Dean Charles S. Dolley intends that the pupils of his department shall dissect this big bee, and study it until they become experts in bee architecture."

The annual election of officers for the ensuing year was then held, and resulted in the following choice:

President—Dr. H. Townsend.
Vice-President—Henry M. Twining.
Secretary and Treas.—F. Hahman, Jr.
Librarian—Miss Dora Davidson.

After a vote of thanks to the retiring officers, the Treasurer's report was read and accepted, showing a balance of $18.36 in the treasury.

The Secretary then read his brief history of the Association as follows:

PHILADELPHIA BEE-KEEPERS' ASSOCIATION

On the evening of Jan. 23, 1882, there assembled at the residence of Dr. H. Townsend, 1514 Vine Street, Philadelphia, eight gentlemen. They met in response to a call issued for the purpose, as the postal card convening the meeting stated, of forming a bee-keepers' association. From this humble beginning, started just ten years ago this evening, in this very room, there originated the "Philadelphia Bee-Keepers' Association," one of the most solidly established and prosperous bee-keepers' associations in America.

Although never counting over 60 members on its roll at any time, and its influence and reputation never extending beyond its own sphere, it has gone on persistently with its regular monthly meetings, through prosperity and adversity; ever steadfast, ever a credit to its founders, an inexhaustible fund of pleasure, and a vast educator of the ladies and gentlemen comprised in its membership.

The Philadelphia Bee-Keepers' Association has never made a great stir in the bee-keeping world, and many of the prominent apiarists of America may not even know of its existence; but, nevertheless, it has accomplished more than have the majority of bee-keepers' associations of this country, its membership has mostly been composed of ladies and gentlemen whose desire for knowledge and interest in the wonders and teachings of nature led them to the scientific pursuit of apiculture, hence it has mainly been an association of amateurs, and not one of large honey-producers.

The first thought of the inception of a bee-keepers' association originated with Dr. H. Townsend and Thos. F. Wittman, who issued a call to the bee-keepers of this city and vicinity to meet at 1514 Vine Street, on the evening of Jan. 23, 1882.

The eight founders of the Association were: Samuel T. Ramsey, Dr. H. Townsend, Geo. L. Miller, Thos. T. Crosley, Thos. C. Davidson, Thos. F. Wittman, C. H. Beeler, Jr., and F. Hahman, Jr. Of these members three are still with the Association, viz.: Dr. H. Townsend, T. C. Davidson and F. Hahman, Jr.; three have been removed by death, viz.: Samuel T. Ramsey, Geo. H. Miller, and Thos. T. Crosley; while the remaining two, Thos. F. Wittman and C. H. Beeler, Jr., resigned from membership a few months after the Association was started. On Jan. 30, 1882, the second meeting was held, when a Constitution and By-Laws were adopted.

Among the earnest workers who joined the Association in the early part of its existence were Mrs. M. L. Thomas and Arthur Todd. Mr. Todd was indefatigable in his efforts to further the interests of the Association, and much of the success of the society was directly due to his energy: through his sudden death, on Feb. 11, 1888, the Association sustained a great loss.

Mrs. Thomas, who has also aided the Association in a number of different ways, is now a resident of New York city, and was elected to honorary membership at the time of her removal to that city.

Of the good work accomplished by this Association the greatest was, without question, the bee-exhibit at the Pennsylvania Agricultural State Fair, in September, 1884. The exhibit made by the Association and its members was a grand success, and occupied a large tent which was crowded with visitors daily. A large number of colonies of bees in observation hives was a source of wonder to the public, and every conceivable product derived from honey and wax was exhibited. The wax exhibit was undoubtedly the best and most complete ever attempted in this country. The honey exhibit, though small, was also good, none of the members being large honey-producers.

A number of magnifying glasses gave the public a better view of the anatomical structure of the bees, queen and drones. Several nuclei colonies, in observatory hives, were on exhibition, fully equipped in rearing queens. An exhibition of transferring bees from box-hives into movable-frame hives was also given under the large wire-gauze tent belonging to the Association, also the operation of extracting honey from the combs. A book of registry for bee-keepers was also kept in the tent, and among the strange and mysterious visitors who registered therein were the King of Kamtschatka and the Emperor of Japan.

Another noteworthy incident in the history of the Association was the reception tendered Mr. T. W. Cowan, Editor of the *British Bee Journal*, who, accompanied by Mrs. Cowan, visited Philadelphia while making a tour of Canada and the United States in the Fall of 1887.

The reception was held on Sept. 26, 1887, at Carpenter's Hall, on Chestnut Street, famous as the meeting-place of the first Congress of the United States.

Mrs. Thomas, in a few well-chosen remarks welcomed the distinguished visitors to our city. Mr. Cowan responded in a cordial manner, and gave his listeners a detailed account of the workings of the British Bee-Keepers' Association, which was listened to with marked attention.

The powerful microscope which Mr. Cowan carried with him was adjusted, and the members, forming in line, viewed the various parts of the honey-bee, with which the majority were familiar, though they had never seen them through a glass of such power; the Association having had many former microscopic exhibitions, with such glasses as were at their disposal.

In writing of his trip through the States, Mr. Cowan, in a subsequent number of the *British Bee Journal*, remarked that he met the most scientific bee-keepers in Pennsylvania; certainly a great compliment to our Association and the members. It may also be added that the Philadelphia Bee-Keepers' Association was the only organized body of apiarists who tendered Mr. Cowan a reception on his trip to the United States.

The most useful branch of the Association is its Library, composed of books and bee-literature of all kinds. A number of foreign bee-periodicals are also kept on its files; in it are also to be found a number of old bee books, in which ideas on bee-culture are expressed that afford great amusement in the light of modern science.

The Association imported the first charts of the physiology and anatomy of the honey-bee from England. They have figured in an endless number of lectures before the Association and other assemblages.

The minutes of the Association for the ten years form a vast fund of information on an innumerable variety of bee-matters, and as a book of reference of the work accomplished are of great value.

The offices of President and Secretary of the Association have been filled for the whole term of ten years by Dr. H. Townsend and F. Hahman, Jr., respectively.

To Dr. Townsend, for his unflagging energy in the labor for the constant advancement of the welfare of the Association, the members feel deeply indebted. He has been ever ready to burden the hard work upon himself, at all times on the alert for new ideas in bee-keeping, and on the look-out for the merits possessed by new inventions, of bee-appliances to be brought before the members, to be explained and lectured upon; and when he thus appears at the meetings, laden down with papers, bee-periodicals, boxes and packages, charts and diagrams, he then feels happy—happy because he is rendering a service to his fellow men.

As we now pause, and look back over the first decade of our existence as an Association, at the strides we have made in the science of apiculture since our humble beginning; as we recall the ties of friendship which bind us together, and to the memory of those who have fallen by the wayside, and passed into "the Valley of the Shadow of Death," may we not humbly hope that it may be said unto us: "Well done, thou good and faithful servant?" and as we turn to the future, ready to take up the onward march, to overcome new difficulties, to place bee-keeping on a higher plane than it ever occupied before, let us go forward with renewed energy and vigor, onward and upward. "Excelsior."

After the reading of the Secretary's sketch, Dr. and Mrs. Townsend invited the members to partake of a collation, served by them in honor of this anniversary.

The table in the dining room, to which the members adjourned, was loaded with good things, the center piece, consisting of a large cake, ornamented with the inscription, "From the Bees to their Keepers, 1882—1892."

The guests enjoyed themselves royally, and Miss Dora Davidson entertained them with several recitations.

After having done full justice to the repast, so bountifully provided, and tendered a vote of thanks to their kind host and hostess, the meeting was adjourned.

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Apicultural Notes from Texas.

A. C. ATEN.

The Winter appears to be about over here, although we may have some freezing yet. Quite often, however, we have no freezing or frost after this time.

Bees have been busy carrying in pollen on fine days for several weeks, and peaches will be in full bloom in a week, if the weather stays warm.

We have no difficulty here in wintering bees if they have plenty of honey, as it is seldom they are kept in their hives over a week at a time without a flight. The most perilous time for bees in this part of Texas is in April, when quite often there is no honey-producing plants in bloom, their stores are exhausted by brood-rearing, and they starve to death unless fed. At that time, when the honey is all gone, they will attempt to live on pollen, and it will give them the diarrhea every time, no difference how warm the weather is, how dry and nice the combs are, or how sweet and perfect the pollen. Then give them a feed of honey, and they will be all right in a day or two.

These are facts that I have witnessed many times—in fact, I have more or less of such cases almost every year, for in managing nearly 200 colonies, it takes very great care, indeed, if I do not let some starve to death before I am aware of it.

We had a pretty cold time this Winter, with snow 3 inches deep, and the mercury down to 20° above zero, which was pretty cold for this part of Texas.

MARKINGS OF BEE-PROGENY.

If I understand some of the writers of the AMERICAN BEE JOURNAL, they contend that the daughter of a pure Italian queen mating with a black drone, will produce well-marked Italian bees. Of course this is all guess-work, for it is nothing uncommon for the daughter of an imported queen to produce hybrids, some of which will show little if any yellow. Why make such assertions when it is impossible to know certainly?

ITALIAN AND BLACK BEES.

And still some writers contend that the blacks are as good or better than the Italians. Well, perhaps so in some places, but certainly not here. I have had both kinds for the last ten years in Texas, and the Italians are the best in every way, except in working for extracted-honey the blacks are much easier to get off the combs, if they have much surplus to extract, which is seldom the case.

A pure black colony with me is almost worthless. Hybrids generally do pretty well, but my largest yields of honey are generally from pure blooded Italians. Those who like the blacks the best, are certainly welcome to keep them.

HONEY-DEW.

I never have any honey-dew here, but have seen plenty of it, and while undoubtedly the greater portion and worst quality of it is the secretion of plant-lice, I have seen some, and plenty of it, too, that no living man could prove was the product of any insect. It appeared to have come down like "manna from Heaven," and the hickory leaves were loaded with it, and it was not bad honey, if honey at all.

We had plenty of rain last Fall and this Winter, and everything so far is favorable for a good yield of honey. Wheat and oats are looking well, and farmers are just beginning to plant corn.

Round Rock, Tex., Feb, 22, 1892.

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Crop of Red Clover Seed.

I. W. ROLLINS.

I would like to enquire in relation to the crop of red clover seed in the various localities represented by readers of the AMERICAN BEE JOURNAL.

There has usually been a large amount of seed grown in this part of Minnesota, but in the Fall of 1890 there was a light crop, and in the Fall of 1891 there was no seed in the medium clover, and but little in the mammoth variety.

The first crop of medium blossomed as usual, and was cut early, as a rule, so that a crop of seed might be secured The second crop grew well, was a heavy burden, but when the blossoms should have made their appearance, there was only a bald head—not a red blossom to be found on an acre. On examination of these heads, I found they were full of larvæ of a light-pink color, and hundreds of them in a single head. They seemed to be at the point where the honey is when they are perfect blossoms.

I made numerous inquiries of farmers and threshers, but no one could tell me why there was no seed. They said the clover was all "bald-headed," and no seed in it. Not of whom I inquired had found the reason.

The crop of Alsike clover seed in this section was the heaviest we have ever raised, some pieces yielding seven or eight bushels to the acre. I imagine one reason of the large yield was, that there was but little honey in the white clover, and the bees worked the Alsike for all it was worth.

Elgin, Minn., Feb. 27, 1892.

Wayside Gleanings.

Our heaviest burdens are those we borrow.

How easy it is to admire people who agree with us.

It is a great deal easier to be contented without riches than it is with them.

The greatest blockhead is the one whose mistakes never teach him anything.

If the earth were covered with flowers all the year round the bees would become lazy.

Any fool can ask questions, but it takes somebody who knows something to answer them.

Paint the tools and they will last longer.

Irregular feeding makes an uneven fiber of wool.

Numbered with potatoes that are everywhere receiving commendation are the varieties Rural New Yorker No 2 and the Thorburn potato.

In pruning small orchards the thumb and finger were declared to be the best implements that could be used at the California State Horticultural society.

There are no disadvantages to be cited against obtaining seeds, trees, etc., from points considerably north of where the planting is done. We are not so certain that the reverse of this rule, in going toward the equator for planting stocks. is equally true, says The American Gardening.

CONVENTION DIRECTORY.

Time and place of meeting.

1892.
Apr. 6, 7.—Texas State, at Greenville, Tex.
A. H. Jones, Sec., Golden, Tex.

Apr. 7.—Utah, at Salt Lake City, Utah.
John C. Swaner, Sec., Salt Lake City, Utah.

Apr. 21.—Colorado State, at Golden, Colo.
H. Knight, Sec., Littleton. Colo.

May 5.—Susquehanna Co., at Brooklyn. Pa.
H. M. Seeley, Sec., Harford, Pa.

May 28.—Haldimand, at Nelles' Corners, Ont.
E. C. Campbell, Sec. Cayuga. Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Eugene Secor..Forest City, Iowa.
SECRETARY—W. Z. Hutchinson....Flint, Mich.

National Bee-Keepers' Union.

PRESIDENT—James Heddon ..Dowagiac, Mich.
SEC'Y AND MANAGER—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Good Prospects for Clover.

I found every colony of my bees alive last Spring, and commenced the season with 72 in fair condition. Increased to 90 colonies, and obtained 5,043 pounds of honey, all extracted but about 150 pounds. Included in the above was 1,300 pounds mixed with honey-dew. I had no white honey. Bees are going through the Winter here so far in fine condition—no loss so far. The prospects are fine for clover this season. We live in hope. BYRON IIAMS.

Worcester, Mo., Feb. 24, 1892.

The Bee-Keepers' Union.

I am surprised that the whole list of members of the National Bee-Keepers' Union is so small. Of the bee-keepers in the country we ought to have a membership of 10,000, then we should be a body that would be invincible. The work that has been done shows what a few can do; if that number was largely increased, we would bear down all opposition by sheer numerical strength. In cases of Unions of this nature, I think of the noted "Shay Rebellion." Washington, when asked how many men it would take to put it down, was told, say 5,000; he at once replied, if 5,000 will do it, take 10,000, and there will be no trouble. So, with us, while a few presenting a bold front may work great good, if he had a big body, we should prevent many encroachments on our rights, that we have to fight. But the great trouble is this, as I look at it: While many scientific men are bee-keepers, as a rule bee-keepers are far from having any knowledge of science. Too many of them run in the old ruts of 50 or 60 years ago, claiming they know it all. J. E. POND.

North Attleboro, Mass.

Folding Honey-Sections.

I have been amused in reading the different ways men have of dampening sections before folding. I have used the one-piece section since first invented. I keep them dry, and fold without moistening. I have kept some five years in a dry place, and they folded as well as new. It looks to me as though dampening the inside would swell the shoulder and strain the joint more than when dry. C. L. LOVELAND.

Plainview, Minn.

[When sections are dampened, it should be on the outside, not the inside, as contemplated by Mr. Loveland in the above.—ED.]

Carrying Pollen—Mailing Queens.

Bees commenced carrying the first pollen on Feb. 13, which they gathered from red elm. The colonies having plenty of stores have brood in three to four combs, with many young bees gnawing their way out; and should this fine weather continue, the roar of the drones will ere long be mingled with the merry hum of the busy bees. Some of our correspondents wish to know if queens are actually sent through the mails in March. I will explain how they may be sent in March, or even in February. Use a modified Benton cage; fill one partitioned space with candy, first covering the cage with flannel, or other woolen cloth, making a hole for air to correspond with the hole in the lid. Then nail on wire-cloth and the lid. Thirty or 35 workers should go with the queen. Then wrap the cage with good wrapping-paper three times around, and punch a few holes through the paper to correspond with the hole in the lid, for air. A queen put up thus should go to any part of the United States or Canada with reasonable safety. The most trouble has been found in sending queens during very warm weather, and as few workers as eight to accompany the queen seemed to be too many. J. N. COLWICK.

Norse, Texas, Feb. 22, 1892.

Good White Clover Season.

Up to date my 75 colonies of bees are wintering well. They will all survive the Winter, if the stores do not fail. Last season was remarkably good for white clover honey, of which I got a few pounds over 2,000. The weather cut off the Fall supply, making the white clover honey fill the place of surplus and stores. J. F. LATHAM.

West Cumberland, Me., Feb. 29, 1892.

Queens Purely Mated.

If Mrs. Jennie Atchley will use my method she will have better success in getting queens purely mated. It is as follows: "I have commonly selected one imported queen to breed drones from, crowding her at drone laying, and then distributing the drone-brood through the yard to hatch. If drones are in all parts of the bee-yard, they are much more likely to be flying at all times of the day than when all are in one hive." JOHN ANDREWS.

Patten's Mills, N. Y.

Black Bees and Queen-Breeders.

I have read, on page 253, John H. Blanken's article. It surely sounds like inexperience, that causes him to prize the black bees so highly above all other races. That they have some good points we must all admit, but the bread-and-butter side of the question for me says that Italians are just as far ahead of the blacks as Jay Gould's railroad-car is ahead of the old-time ox-wagon. I have kept both blacks and Italians for 20 years, and have long ago decided on that question. In really good honey years we cannot see so much difference between the two races as to the amount of honey gathered, but when dry or bad seasons come, the Italians rush right ahead, and make their own living, and sometimes store some surplus honey, when the blacks are starving, and bothering the Italians by trying to steal. Of course, there are some who still hold on to the old ox-wagon, and some still hold on to the black bees, and I suppose always will. In our articles to the public, let us try to give the real practical and experienced part of bee-culture, and let the imaginary part remain with us.

MRS. JENNIE ATCHLEY.

Floyd, Tex., Feb. 27, 1892.

Phenol for Foul-Brood.

I want to know what Prof. Frank Cheshire means by 1-200, 1-400, 1-500, 1-750, etc. He gives syrup phenolated by 1 in 500. He sprayed with water 200, phenol 1. What kind of syrup did he use—sugar or honey? How much sugar or honey to a pint of water, and so on?

CHAS. W. LEAH.

Spanish Fork, Utah.

[He means one drop of pure phenol to 200 drops of the syrup, when he puts it thus: 1-200. It is sugar syrup made by 1 pound of sugar to 1 pint of boiling water.—ED.]

Gathering Pollen and Rearing Brood.

My bees have wintered finely. We have had but one week of Winter weather. The bees had a flight every week but one, and on Feb. 15 they commenced to gather pollen. On Feb. 20 they were gathering honey. I examined them and found brood in from one to three frames.

GEO. W. MOORE.

Milton, Oreg., Feb. 26, 1892.

Experience in Hiving Bees.

Last Spring I bought 15 colonies of bees, and increased to 30. The season was very poor in this locality, and the bees stored very little surplus honey. My bees are in good condition now. I tried a great many of the new devices for handling bees, some to my satisfaction, and some greatly to my sorrow, especially the hiving-box. The first time I tried it, a neighbor bee-keeper, who is a skeptic to new fixtures, was present. I took the box, punched into the cluster, and emptied it at the new hive, saying, "There is a scoop-shovel of bees." But the next dip I made, about a thousand or more bees showed fight. While the battle was increasing in the bees' favor, my neighbor, who had retreated to a safe distance, was having lots of fun at my expense. I called my wife to bring the smoker, and with her assistance I hived the bees with both eyes swelled shut, and my hands and arms swelled so badly that I could not work for three days. With the assistance of a veil and a pair of leather mittens, I hived the next swarm more conveniently, but I intend to still keep bees.

J. L. LUDWIG.

Delphos, O., March 1, 1892.

Fine Country for Bees.

We have 150 colonies of bees in good condition, and want to increase them to 300 colonies the coming season. This is a fine country for bee-culture.

DUNCAN & CONRAD.

Du Pont, Ga., Feb. 29, 1892.

Planting Basswood Trees.

I am about to send to a nursery man for 500 basswood trees. I see that he has three kinds advertised, viz.: American Seedling, European, and Large Leaved. I would like to ask Minnesota apiarists which would be best for a Minnesota climate? and which is best for honey, all things considered? I would like to have this question answered through the AMERICAN BEE JOURNAL in time for my use this Spring.

J. E. CADY.

Medford, Minn., Feb. 29, 1892.

Careless Bee-Keeping—Making Hives.

Bee-keeping is dull here. Some few people have bees in box-hives around in the fence corners out of the way, and hardly ever see them except in swarming time, when they hunt up an old "gum" that the bees died in the Winter before. Such bee-keeping as that will never do. I wish some one would tell me through the BEE JOURNAL how to make Simplicity hives, what length and width to make the frames, etc. I take the AMERICAN BEE JOURNAL, and could not well do without it at the price. Bees are doing well here, considering their treatment. Hardly any have died this Winter, and they are flying nicely now.

J. BUNYAN S.

Spurger, Tex., Feb. 22, 1892.

[The only safe way, if you want to make hives, is to buy one of the kind desired, and use it as a pattern.—ED.]

Mating of Queen-Bees.

On page 262, Geo. S. Wheeler says he has no doubt but a large part of my queens are not purely mated. Although these queens now have beautiful bees from their own eggs, with all the markings of pure Italians clustered all around them this cold day, yet Mr. W. thinks they are hybrids, or at least a large per cent. of them are. I cannot believe that he is correct in this view of the matter. I shall test the matter next Summer. I believe that the blood of the male bee will tell on the young queen every time, no matter whether it be a black queen or an Italian queen. If a black queen meets an Italian drone, her young bees will tell the tale on her, and the same is true with the Italian queen—if she mates with a black drone, her young bees will tell what no one knew before, namely, that when she took her wedding flight, she unluckily missed her own color. How are we going to know that a queen has been purely mated (if Mr. Wheeler is correct), unless we keep her and test her down three or four generations?

JOHN D. A. FISHER.

Woodside, N. C.

Size of Brood-Chamber.

The brood-chambers of Thos. Rehoret's hives (page 262) are too much crowded. The hive should be at least 11 inches wide to give 1⅜ for each frame. Bees do not winter well in a cold climate spread so thinly on the combs. If he would take one frame out and spread the others they would do, if they have plenty of good food. I prefer 9 Langstroth frames in a hive 13 inches wide; my bees then will winter well, and do not die with old age, as is claimed on page 264. Bees do not die with old age—they get chilled to death on the outside of the cluster in cold countries. Bee-keepers lost heavily here last Winter. This has been a warm Winter, and they have not lost any.

J. H. BERRY.

Gales Creek, Oreg., Feb. 26, 1892.

Wintering Well—Italian Bees, etc.

So far the bees in this part of the country are wintering very well. Feb. 25 was a pleasant day, and as I had been confined to the house for nearly two months with the terrible *La Grippe*, I took a walk through my apiary, which I enjoyed very much, as those who have had *La Grippe* may suppose. I found my bees in splendid condition, except one colony, and that had "the grippe," judging by its weakness. I notice a few writers are in favor of the common black bee, but while they are not objectionable at all, the Italians are far ahead of them, according to my knowledge. I had the blacks before I had the Italians, and I would sooner handle 50 colonies of the Italians than 25 blacks; and then the Italians are better honey-gatherers; they are also stronger, and are not so liable to be robbed. But we are living in a land of liberty, and as for choice, I will take the Italians every time. When is the best time to take the bees from the cellar to leave them out?

CHARLES E. FALKNER.

Pioneer, Ohio.

[When settled warm weather has come, is the proper time to finally take the bees from the cellar.—ED.]

Convention Notices.

UTAH.—The Utah Bee-Keepers' Association will hold its annual convention in Salt Lake City, Utah, on April 7, 1899.
JOHN C. SWANER, Sec.
Salt Lake City, Utah.

COLORADO.—The Spring meeting of the Colorado State Bee-Keepers' Association will be held in Golden, Colo., on April 21, 1892.
E. B. PORTER, Pres.
H. KNIGHT, Sec., Littleton, Colo.

TEXAS.—The 14th annual meeting of the Texas State Bee-Keepers' Association will be held at Greenville, Hunt Co., Tex., on Wednesday and Thursday, April 6 and 7, 1892. All interested are invited. A. H. JONES, Sec.
Golden, Wood Co., Tex.

PENNSYLVANIA.—The tenth semi-annual meeting of the Susquehanna Co. Bee-Keepers' Association will be held at Bullard's Hotel in Brooklyn, Pa., on Thursday, May 5, 1892, at 10 a.m. All are cordially invited.
Harford, Pa. H. M. SEELEY, Sec.

Our Book—Bees and Honey.

A new (the eighth) edition of the well-known work, "Bees and Honey, or the Management of an Apiary for Pleasure and Profit," thoroughly revised and largely re-written, is sent to us by Thos. G. Newman, the author, Chicago. It is a duodecimo volume of 250 pages, adorned with a great number of illustrations (including portraits of all the chief students of the bee, living and dead), and neatly bound in cloth. The price is $1.—*Country Gentleman.*

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OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

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ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

☞ Send us *one new* subscription, with $1.00, and we will present you with a nice Pocket Dictionary.

☞ The date on the wrapper-label of this paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to pay for another year.

☞ Systematic work in the Apiary will pay. Use the Apiary Register. It costs:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

☞ As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.

YOU NEED an Apiary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for $1.25; or for 200 colonies for $1.50. *Order one now.*

Supply Dealers desiring to sell our book, "Bees and Honey," should write for terms.

We Club the American Bee Journal and the Illustrated Home Journal, one year for $1.35. Both of these and Gleanings in Bee Culture, for one year, for $2.15.

If You Have any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time.

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

When talking about Bees to your friend or neighbor, you will oblige us by commending the BEE JOURNAL to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the Convention Hand-Book by mail, postpaid. It sells at 50 cents.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club.*
The American Bee Journal	$1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	2 00	1 75
The Apiculturist	1 75	1 65
Canadian Bee Journal	1 75	1 65
American Bee-Keeper	1 50	1 40
The 7 above-named papers	6 00	5 00
and Langstroth Revised (Dadant)	2 40	2 25
Cook's Manual (1887 edition)	2 25	2 00
Quinby's New Bee-Keeping	2 50	2 25
Doolittle on Queen-Rearing	2 00	1 75
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 50	1 40
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 50	1 35
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
Toronto Globe (weekly)	2 00	1 70
History of National Society	1 50	1 25
American Poultry Journal	2 25	1 50
The Lever (Temperance)	2 00	1 75
Orange Judd Farmer	2 00	1 75
Farm, Field and Stockman	2 00	1 75
Prairie Farmer	2 00	1 75
Illustrated Home Journal	1 50	1 35
American Garden	2 50	2 00
Rural New Yorker	3 00	2 25
Nebraska Bee-Keeper	1 50	1 35

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

If You Want to know how Queens are fertilized in upper stories, while an old Queen is laying below—how to *safely introduce* Queens at any time when bees can fly—all about different bees, shipping Queens, forming nuclei, multiplying or uniting colonies, etc.—send us $1.00 for "Doolittle's Queen-Rearing;" 170 pages; bound in cloth, and as interesting as a story.

Winter Problem in bee-keeping; by G. R. Pierce, of Iowa, who has had 25 years' experience in bee-keeping, and for the past 5 years has devoted all his time and energies to the pursuit. Price, 50 cents. For sale at this office.

The Convention Hand-Book is very convenient at Bee-Conventions. It contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee-Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with Subjects for Discussion. In addition to this, there are about 50 blank pages, to make notes upon, or to write out questions, as they may come to mind. They are nicely bound in cloth, and are of the right size for the pocket. We will present a copy for one new subscription to the BEE JOURNAL (with $1.00 to pay for the same), or 2 subscribers to the HOME JOURNAL may be sent instead of one for the BEE JOURNAL.

When Writing a letter be sure to sign it. Too often we get letters with the name of the post-office, but no County or State. One such came recently, and we looked into the Postal Guide and found there were places by that name in 13 States. Be sure to stamp your letter, or it may go to the dead letter office, in Washington, D. C.

The Honey-Bee; Its Natural History, Anatomy and Physiology. By T. W. Cowan, editor of the *British Bee Journal*, 72 figures, and 136 illustrations. $1.00. For sale at this office.

I Know an advertiser, says the *Shoe Recorder*, which took 10 per cent. of last year's profits and invested it in advertising. That is a good idea, and one that pays well.

A Nice Pocket Dictionary will be given as a premium for only **one new** subscriber to this JOURNAL, with $1.00. It is a splendid little Dictionary—just right for the pocket. Price, **25 cents.**

Trip-Hammer advertising is the kind that creates industries that make us marvel at their magnitude. How long would it take to shape the hot iron if a stroke was given this week and another six months hence? Constant pounding is what does the business.

HONEY AND BEESWAX MARKET.

CHICAGO, Mar. 5.—Fancy white comb selling at 16c.; other grades 10@14c. Extracted slow demand. 6½@7½c. Beeswax. 26c.
S. T. FISH & CO., 189 S. Water St.

NEW YORK. Mar. 5.—Little demand, sufficient supply. We quote: Fancy white 1-lbs., 13@14c.; off grades, 11c.; buckwheat, 9c.—Extracted. California, white clover and basswood, 7@7½c.; Southern. 65@70c. per gallon. Beeswax, very scarce at 28@29c.
HILDRETH BROS. & SEGELKEN,
28-30 West Broadway.

KANSAS CITY, Mo., Mar. 5.—Demand slow, and market well supplied. White comb, 1lb. 14@15c; dark, 9@12c. Extracted — White, 7½c; dark, 5@6c. Beeswax, is in light supply, and demand good, at 23@26c
CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI. Mar. 5.—Trade is quiet. Extracted, 5@8c. Choice comb honey. 14@16c. Beeswax is good in demand, at 23@25c for good to choice yellow.
C. F. MUTH & SON,
Cor. Freeman & Central Aves.

NEW YORK, Mar. 4.—Demand for honey is small, with adequate supply. We quote: Fancy 1-lb. clover, 14c.; fair, 10@11c Buckwheat. 8@9c. Fancy 2-lb. clover, 11c.; fair. 9@10c.; buckwheat, 7@8c. Extracted, clover. 7c. lb.; buckwheat, 6c. Beeswax, fair demand, 28@30
CHAS. ISRAEL & BROS., 110 Hudson St.

KANSAS CITY, Mo., Mar. 5.—Demand poor, with large supply of comb. We quote: Comb —1-lb. fancy, 15@16c; dark, 12@13c. Extracted—White, 7@7½c; dark, 5@6c. Beeswax —None in market; light demand.
HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, Mar. 5.—The demand for comb-honey is fair and supply moderate. We quote: Comb, 12@13c; extracted, 7@8c. Beeswax in good supply, and light demand, at 25@26c.
M. H. HUNT, Bell Branch, Mich.

CHICAGO, Mar. 5.—Demand good and sup-sufficient. We quote: Comb, 14@16c. Extracted, 6@7c. Beeswax, in light supply, and good demand, at 25@27c.
J. A. LAMON, 44-46 S. Water St.

MILWAUKEE, Mar. 5.—Demand fair and supply good, except of the best quality. We quote: Comb—choice, 1-lb., 15@16c; fair, 13@14c; dark, 10@12c. Extracted—white, in barrels or kegs, 7½@8c; dark, 6@6½c. Beeswax, 23@28c.
A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO. Mar. 4.—Demand good, supply small. We quote: Comb, 1-lb., 10@14c. Extracted, 5½@6½c. Beeswax, in light supply and good demand, at 23@25c.
SCHACHT, LEMCKE & STEINER,
16 Drumm Street.

MINNEAPOLIS. Minn.. Mar. 5.—Demand is moderate, supply ample, and shipments coming in freely. We quote: White comb, 17@18 cts.; dark, 14@15c. Extracted, 10@10½c.
STEWART & ELLIOTT.

CHICAGO, Mar. 5.—Demand is now good supply is not heavy. We quote: Comb, best grades, 15@16c. Extracted, 6@8c. Beeswax, 26@27c. R. A. BURNETT, 161 S. Water St.

BOSTON, Mar. 4.—Demand is light, supply ample. We quote: 1-℔. fancy white comb, 14@15c; extracted, 6@7c. Beeswax, none in market.
BLAKE & RIPLEY, 57 Chatham St.

ALBANY, N. Y., Mar. 5.—Demand is slow, supply not liberal, as stock is mostly in. We quote: White comb, 12@15c; buckwheat and mixed. 8@12c. Extracted — Light, 7@7½c; dark, 6@6½c. Beeswax—Supply light, and demand steady, at 28@29c.
H. R. WRIGHT, 326-328 Broadway.

NEW YORK, Mar. 5.—Demand is light, and supply large, except buckwheat comb. We quote: Fancy white comb, 12@14c; buckwheat, 9@11c. Extracted—Clover and basswood in good demand at 6½@7c; buckwheat ind emand at 5@6c. Beeswax in fair demand at 26@28c.
F. I. SAGE & SON, 183 Reade St.

NEW YORK, Mar. 5. — Demand moderate, and supply reduced, with no more glassed 1-℔ nor paper cartons, 1-℔. We quote: Comb, 1-℔, 14@15c. Extracted—Basswood, 7¼@7½c; buckwheat, 5½@6¼; Mangrove, 68@75c per gal. Good demand for dark extracted honey. Beeswax, in fair supply, with small demand, at 26@27c.
F. G. STROHMEYER & CO., 122 Water St.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

WANTED—A No. of Colonies of Bees, Italians preferred. J. B. Stone, South Park, Kan
10A2t

WANTED—An agent in every county for our New "St. Joe Hive." St. Joseph Apiary Co., St. Joe, Mo. 10Atf

WANTED—Bee-keepers to send for my price and samples of Comb-Foundation.
JACOB WOLLERSHEIM, Kaukauna, Wis.
1Atf

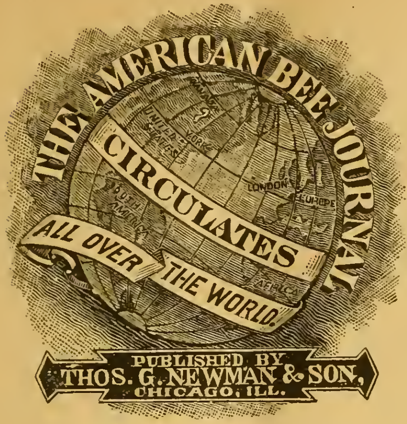
WANTED—A situation in an apiary or hive manufactory. I am willing to make myself generally useful. J. W. TEFFT.
5Atf 318 Swan St., Buffalo, N. Y.

WANTED—To exchange Bees, Honey and Supplies for Cash or Tinners' Tools.
J. A. BUCKLEW, Warsaw, Coshocton Co., O.
5Atf

WANTED—A situation in an apiary by a person of considerable experience.
W. O. SCHOLL, Wellsville, Franklin Co., Kan.

TO EXCHANGE—A 10-inch Pelham Foundation Mill. in No. 1 order, for offers or cash. Write for Circular of Bee-Keepers' Supplies. JNO. NEBEL & SON. High Hill, Mo.
10A3t

WANTED—To sell 25 Colonies Italian Bees in 2-story 10-frame Improved L. Hives with T supers. combs built from foundation. Queens of Doolittle's and Alley's stock.
11D4t E. T. JORDAN, Harmony, Ind



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THOMAS G. NEWMAN,
EDITOR.

Vol. XXIX. Mar. 17, 1892. No. 12.

Editorial Buzzings.

Each Day the world is born anew
For him who takes it rightly;
Not fresher that which Adam knew,
Not sweeter that whose moonlit dew
Entranced Arcadia nightly.

Earle Clickinger, the honey-dealer of Columbus, O., is dead.

A Bill protecting foreign exhibitors of patented articles from all possible prosecution for infringement has been passed by the Senate, and is pending, and reported sure to pass, in the House. The bill reads as follows:

"That no citizen of any country shall be held liable for the infringement of any patent granted by the United States, or any trade-mark registered in the United States where the act complained of is performed in connection with the exhibition of any article or thing at the World's Columbian Exposition at Chicago."

Father Langstroth is again heard from through his daughter, Mrs. Anna L. Cowan. We regret to announce that he has had a severe attack of *La Grippe*, which, for a time, threatened to become fatal. The careful nursing of his affectionate daughter has, in a measure, restored his wasted vitality, and he is now able to be about again. Mrs. Cowan writes us as follows:

My father is very feeble, and suffers much. In November last he had a severe attack of *La Grippe*, which settled on his kidneys and bladder, and for a time threatened his life. He was a long time in recovering sufficient strength to enable him to get about the house again, and our physician tells us that at his age, and enfeebled condition, we cannot hope that he will ever be free from those disorders.

He desires to be affectionately remembered to you and to yours. We regret to know through the bee-papers that you have also been ill, and trust you will soon be restored to complete health.

ANNA L. COWAN.

We Understand that the Committee appointed by the North American Bee-Keepers' Association at Albany, consisting of Dr. A. B. Mason, P. H. Elwood and J. M. Hambaugh, to secure space at the World's Fair for the apiarian exhibit, are not idle by any means, but are *pushing* matters.

We have, by request, interviewed the State Commissioners several times, and will appear before the State Board of Agriculture at its next meeting in April, to try to get an appropriation for the money necessary to gather a creditable State exhibit.

We have also been notified to attend a conference with Dr. Mason and the Chief of the Agricultural Department of the National Commission on the 16th inst.

As soon as anything is definitely settled, we will report it in the BEE JOURNAL. Though not a member of the committee, we know of what is being done, as we are assisting the committee by every means in our power. At present the committee can only "report progress," and promise details later.

Death of Chas. Bianconcini—The February number of *l'Apicoltore*, the official organ of the Central Association for the Encouragement of Apiculture in Italy, contains the following which Mr. Frank Benton has translated for the AMERICAN BEE JOURNAL:

Another distinguished and meritorious apiarist, Count Carlo Bianconcini, has departed this life. We reproduce the obituary received from Mr. Lucio Paglia, and, uniting with him in bewailing our deceased colleague, we send to the bereaved family expressions of sincere condolence.

"Furnished with the last sacraments of our Catholic religion, Cav. Count Carlo Bianconcini, engineer and former artillery captain, died at his residence in Bologna on Jan. 10, 1892.

"Endowed by nature with great ingenuity, and sustained by a good heart—the worthy seat of humane and elevated sentiments, whoever had recourse to him was made the recipient of wise counsels. Receiving all without distinction, but with innate affability, he left them satisfied and charmed with his familiar and genteel ways. He loved God, his country, and his family, and has left in tears and deepest affliction his wife—the Countess Maria, and their only child—the little Countess Editta, as well as all who knew him.

"Having retired from military life, he devoted himself wholly and indefatigably to the most important occupations, and to the study of agriculture and related industries, acquiring through his writings the esteem not alone of eminent persons versed in these matters, but even of the royal government by which he was often called to the capital and consulted on questions in viticulture and oenology.

"Among agricultural industries apiculture stood first in his thoughts. He held it in high estimation, and occupied himself with it personally and with predilection, always attaining, even in the less favorable years, an adequate compensation for his assiduous care, as can be seen by the accounts which he was pleased to publish in the columns of *l'Apicoltore*. He had his apiary at Poggio Renatico, Province of Ferrara, formerly his home. The hive he preferred was that of Sartori. An enthusiastic apiarist, he acted as an apostle of the rational system of bee-keeping by means of movable combs, and had not a few followers. A ready speaker, he entertained his listeners in this way by the hour, and the delight—the profit which his disciples obtained from the instruction of their beloved master was only to be compared to the satisfaction and the extreme pleasure with which it was imparted. It was his personal and thoroughly radical conviction that to succeed in apiculture it was necessary to commence with one or two colonies alone, and to augment the number gradually. That this maxim was right is proved by the splendid result that he knew how to obtain.

"He is no more. Apiculture has lost in Count Bianconcini a warm and decided sustainer, an expert and intelligent operator, and we can only lament his early demise, and implore peace for his ashes."

◆

Jackson Park will retain as one of its permanent attractions the building which Japan will erect for its headquarters at the Exposition. The building will be modeled after one of the most famous and architecturally unique of Japan's ancient temples, and with its surrounding garden will cost $70,000. About 40,000 square feet will be occupied.

The South Park commissioners have accepted the offer of S. Tegima, representative of the Mikado, to give the structure to Chicago on condition that it be kept permanent, and in repair, and that one room in it be devoted to a public exhibit of Japanese works of art, which the Japanese government agrees to replenish from time to time.

◆

A German Scientist announces with some justifiable pride that he has discovered a way of converting the cellulose of wood into grape sugar, making thereof an appetizing comestible. In polite circles lunches of rosewood piano legs will probably be served, while toothpicks will take rank as a genuine dessert.—*Chicago News.*

That is no worse than to have old boot-legs made into glucose, and then have it fraudulently sold for extracted-honey.

The Chalmers Super, which we lately mentioned as having in our Museum, is thus commented upon by Mr. D. A. Jones, in the *Canadian Bee Journal :*

We are pleased to be able to give a description of a new super. It was invented by Mr. Chalmers, of Poole, Ont., one of our cleverest bee-keepers, who is very ingenious, and quite original in his ideas.

The super may be taken apart or put together in five or ten seconds. It is exceedingly simple in its construction, yet it combines many valuable points and important principles. Mr. Chalmers exhibited it at the annual meeting of the Ontario Bee-Keepers' Association, held at London, where it was examined by many, who pronounced it another step in the right direction.

It is very simple, cheap and easily manipulated, and for a close-end frame hive, we have not seen anything that we think would equal it.

It is admirably adapted for section supers, for which it was originally intended, and is made as follows :

Take two boards ⅜ of an inch thick, 4¼ inches wide, and 3 inches longer than is required for the inside measure of the super; then take two boards ⅞x4¼ inches, the exact length of the inside measure of super; then ⅞ inch from each end of this board put a saw-cut across it ⅜, and 1 1/16 of an inch deep; then cut from the end on an angle into the same cut. This makes a V-shape on one side of the board. Make all for ends this way.

Now, take four pieces 1⅛x⅞x4¼ inches, bevel one side from 1⅛ down to ¾; then nail these four pieces on the ends of the four sides of the super with the bevelled edge in. Turn the two bevelled edges of the end pieces out, and it just fits in the niche like a dovetail.

There is a saw cut made at each end of the side pieces ⅜ of an inch deep, and 1½ inches from each end, when a T-rest is closed down that just fits tight up against the end-board holding it in position. The two ends are held in position by four T-rests, which fit so tightly against them that it is impossible for them to move out of the dovetail.

Perhaps some may ask, What holds the T-rest from falling out, especially the one on the under side, heretofore stated? This super is just 4¼ inches, so you will observe that in order to have a bee-space, he has a rim ⅞ inch wide by 5/16 deep, on which this super is placed. A second rim may be laid on top of the super.

When you wish to reverse it, hold the two rims tight down to the T-rests, then reverse the super.

When the sections are to be taken out of the super, simply remove the T-rest at the ends, which allows the end-board to slip out, and the sections may be emptied out.

For closed-end frames these section rests at the ends would be necessary, while there would be none in the center.

Another point is, that the tin coming over the end of the frame would prevent it from being glued fast with propolis, as is sometimes the case.

The Post-Office Committee of the House has reported favorably on a bill authorizing the Postmaster General to make tests of the free delivery of mails in rural districts.

The corresponding Senate Committee has also indicated its approval of a bill to reduce postage on merchandise from one cent per once to one cent for two ounces.

A Sample of "extra thin" surplus comb-foundation, 12 feet to the pound, made from a 6-inch mill, just started in A. I. Root's wax room is received. It is interesting to note the excellent work they are putting out on the foundation machines now being made at that establishment. The sample is beautiful, and shows perfect workmanship.

No Exchange is more welcome than "Frank Leslie's Illustrated Weekly." It has this week all the improvements which have been gradually taking place in its pages. In make-up and pictures it ranks not only with the best American weeklies, but with the foreign ones as well. But the most interesting thing in the paper is the contribution by Capt. R. Kelso Carter, on the coming transformation of the earth, written in a popular style, the first of a series to be presented, which will be interesting to all. Price, 10 cents.

Honey for Food and Medicine, were its health-producing properties more familiarly known, would be appropriated to a much greater extent than is found at the present time.

That this valuable information is not more extensively disseminated, and a consequent increased demand felt, for the sweet product of the bees, is largely due to the apathy existing among those who produce honey—by their failure to take it upon themselves to inform their neighbors of the facts concerning the health-giving and health-keeping qualities of this "nectar of the gods."

When all appreciate the benefits to be derived from its regular and constant use, then will honey-producers begin to realize the nobility of their pursuit, and exert themselves to supply a demand that will at once arise.

The following paragraphs, taken from the Chicago *Daily News* of recent date, endeavor to show something of the value of honey as an article of diet and remedial agent:

> But few people are cognizant of the benefits to be derived from a moderate use of honey as food. Saccharine matter, as a rule, is apt to affect the system injuriously, but if taken in the form of honey, it at once becomes a valuable food and medicine. Instead of having it given to us in combination with bulk foods, as in the cane and beet, it is, in the case of honey, mingled with fruit juices derived from flowers highly charged with medicinal properties.
>
> Honey taken as food becomes a powerful medicine to the sugar-fed and half diseased, and many people must begin on small quantities and acquire an appetite for it. Foul air, improper ventilation, coal gas and sudden changes of temperature, and exposure of lungs and throats to sudden chill are the source of no end to throat and bronchial troubles. A free, regular and constant use of honey is probably the best medicine for throat troubles known, and its regular use is largely corrective.

◆

The Foreign participation in the World's Columbian Fair, up to the present, embraces 72 Nations and Provinces.

English horticultural papers are renewing their attack on American apples, on the ground that they contain arsenic, and the attacks are being generally copied in the daily press. The charge is that growers sprinkle arsenic on their trees to prevent the ravages of a moth which eats nothing but apples and pears. The editor of the *Horticultural Times* is the author of the "arsenic scare," as it is called. Immense quantities of American apples are sold in England, and bring high prices, which, perhaps, explains the reason for the attack.

Spraying fruit trees, plants and vines for the prevention of the ravages of insects and fungus diseases, is no longer an experiment, but a necessity, in order to get large crops of perfect fruit. Of course the spraying must not be done while the trees are in bloom—but just as the fruit is "set."

For full information on this subject, address William Stahl, manufacturer of Excelsior Spraying Outfits, Quincy, Ills., who will send free a full and complete treatise on this subject.

We are glad to be able to state that Mr. Stahl gives proper directions for the time of spraying, so that no damage will result to the bees. He says:

> Apple trees should be sprayed twice—when the apples are the size of peas, and again in a week or ten days. Plum trees should be sprayed three or four times, at intervals of a week or ten days, beginning as soon as the blossoms have fallen. To spray an orchard will cost, per spraying, for material and labor of applying the mixture as well as preparing it, from 15 to 25 cents per acre.

◆

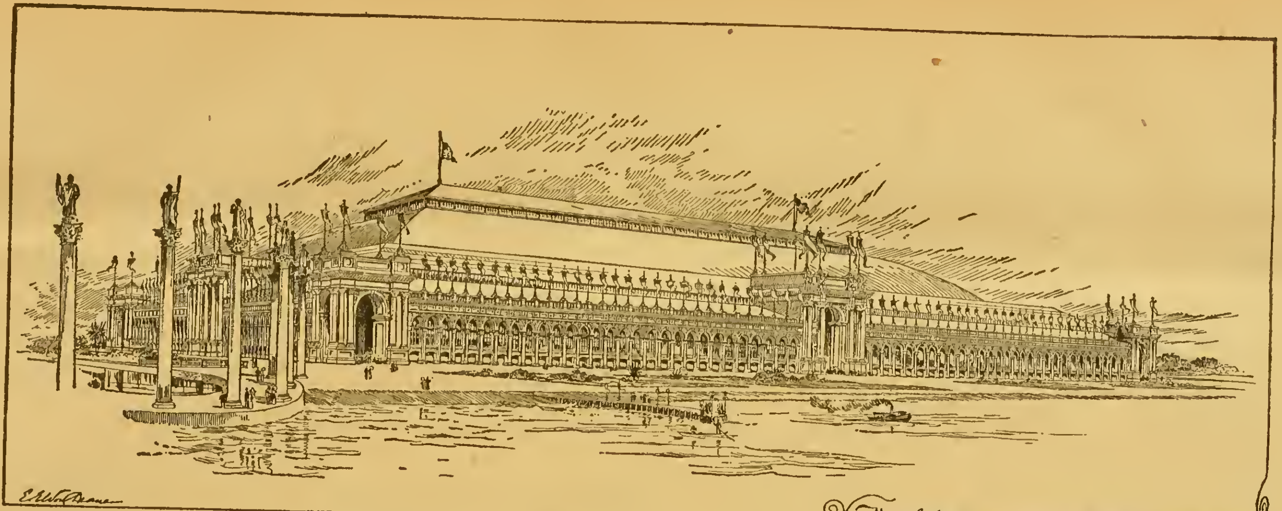
Very Fine samples of thin foundation are received from W. W. Cary, of Colerain, Mass.; two of them being of white wax, and all show excellent workmanship.

◆

The Amateur Bee-Keeper, by J. W. Rouse; 52 pages. Price, 25c. For sale at this office.

MANUFACTURES AND LIBERAL ARTS BUILDING

of the World's Columbian Exposition.



Manufactures and Liberal Arts Building from South-east.

Notable for its symmetrical proportions, the Manufactures and Liberal Arts Building is the mammoth structure of the Exposition. It measures 1,687 by 787 feet, and covers nearly 31 acres, being the largest Exposition building ever constructed.

Within the building a gallery 50 feet wide extends around all four sides, and projecting from this are 86 smaller galleries, 12 feet wide, from which visitors may survey the vast array of exhibits, and the busy scene below. The galleries are approached upon the main floor by 30 great staircases, the flights of which are 12 feet wide each. "Columbia Avenue," 50 feet wide, extends through the mammoth building longitudinally, and an avenue of like width crosses it at right angles at the center.

The main roof is of iron and glass, and arches an area 385 by 1,400 feet, and has its ridge 150 feet from the ground. The building, including its galleries, as about 40 acres of floor space.

There are four great entrances, one in the center of each facade. These are designed in the manner of triumphal arches, the central archway of each being 40 feet wide and 80 feet high. Surmounting these portals is great attic story ornamented with sculptured eagles 18 feet high, and on each side above the side arches are great panels with inscriptions, and the spandrils are filled with sculptured figures in bas-relief.

The building occupies a most conspicuous place in the grounds. It faces the lake, with only lawns and promenades between. The building will cost $1,500,000.

Living and Loving.

To live and to love is better,
When each has its object in view;
To live and to love is blessed,
When those objects are noble and true.

To live, that when mid earth's conflicts
Our life is a help to some heart—
To love all, so truly and purely—
Will both blessings and joys impart.

Thus living and loving, together,
When wisely and well it is done,
Will yield in its highest fruition
A Heaven on earth begun.
—LUCILE.

Queries and Replies.

Are Italian Bees a Distinct Race?

QUERY 810.—1. Is it your opinion that the Italians are a pure and distinct race of bees? 2. If so, why do not our imported queens produce as beautiful, evenly and well marked bees, as some of our home-reared queens? 3. What causes the Italians to "sport" so much?—North Carolina.

I really do not know.—C. C. MILLER.

1. No. 3. Because the type is not thoroughly fixed.—J. A. GREEN.

1. No race at all—*only a variety*. 2 and 3. Because they are *not a fixed type*.—J. P. H. BROWN.

1. Only a thoroughbred. 2. Will you tell? 3. Because they are not a distinct race.—G. M. DOOLITTLE.

1. Yes. 2. Because our queen-breeders are breeding more to beauty than other characteristics. 3. This is a mooted question.—J. M. HAMBAUGH.

1. Yes, if there are any pure races of bees. 2. Like Dr. Miller, I must say, "I don't know." 3. Ask something easy.—C. H. DIBBERN.

1. Certainly it is. 2. They have not been bred and selected with color alone in view. 3. It is true of all races of animals, and why not of bees?—A. J. COOK.

I have just been reading Ernest Heckle on evolution and the descent of man, which convinces me that it would require two pages of the BEE JOURNAL to give space to a comprehensive answer to your questions.—JAMES HEDDON.

2. I think that the majority of imported queens will compare favorably with the same number of home-bred queens. 3. If we had full control of the mating of queens, you would see very few "sports.—H. D. CUTTING.

1. I have no doubt there is a pure race of Italian bees. 2 and 3. Do not imagine that we Americans are the only importers of bees, and it would not be anything wonderful to receive a mismated queen even from Italy.—MRS. J. N. HEATER.

1. Our best authorities have long been of the opinion that the Italians are not a pure race. Still, it is sufficiently fixed to entitle it to the distinction it has so long held. 3. They "sport" so much because of the admixture of some other race.—G. L. TINKER.

As I understand the matter, all bees in Italy are not yellow, but are more or less crossed with dark bees. Our American breeders have taken great pains to breed for color, hence, as I believe, queens reared by our best breeders will not sport as much as those that come from Italy.—E. FRANCE.

1. Practically speaking, yes. That is, they are pure in the sense that shorthorn cattle are pure. 2. I believe they do, unless by in-breeding our home-bred queens are hightened in color. 3. Everything sports. Name a race of animals, or a family of plants, that all look exactly alike.—EUGENE SECOR.

1. No, not a fixed type. It takes a long period of time and careful breeding to establish a fixed type, or race, of any animal or insect. 2. They are not a fixed or established type or race of bees, hence, the disposition to "sport" or vary. 3. The same as No. 2.—MRS. L. HARRISON.

1. Yes, just as the Norman horses are a pure race. 2. Because our home-bred queens are bred for color, while the imported ones are not. 3. I think the so-called sporting is caused by mixture with other races of bees.—R. L. TAYLOR.

1, I do not think they are, if we figure down fine; but they may be so considered practically, as their characteristics are fixed so permanently that they duplicate themselves with certainty. 2. The matter of color is not a test of purity at all; the tests are peculiar formation, and three rings or more, of various shades of yellow. 3. Pure and purely bred Italians do not sport to any extent, in my experience.—J. E. POND.

1. From what I have read, and judging from my own experience, I lean to the opinion that the Italians are a mixed race. 2. It is claimed for the imported queens that they produce as evenly marked, and as good or better workers, than home-bred Italians, but none as finely marked as the handsomest American-bred.—S. I. FREEBORN.

1. Yes, as much as the black or the Cyprian. 2. Because our *ideal* Italian bee is above the existing standard in color. 3. The same causes that make sports in all races of animals. Black bees are not all alike. If they were, no one could try to introduce varieties like the Carniolan and the so-called Punic, which evidently differ slightly from other black bees.—DADANT & SON.

1. As the word "race" is usually understood, the Italians are a pure race. 2. For the same reason that some of our home-reared do not "produce as beautiful, evenly and well marked bees" as some others do. 3. I suppose it is because they like to "sport," but I do not believe they "sport" more than others, and then for the same reasons.—A. B. MASON.

1. It is not. 2. As the type is not fixed, they cannot expect to be uniform. I am of the opinion that all of our bees —Italians, Cyprians, Syrians, Carniolans and Germans—are of one species, and sprung from the same stock. Hence, I think it an error to call the crosses between any of these varieties "hybrids." There are no hybrid bees. 3. The above answers No. 3.—M. MAHIN.

1. No. 2. The reason is, American breeders select the finest marked specimens to breed from, and thereby increase the beauty and uniformity of the home-bred bees. 3. The Italian bees "sport" in breeding, because they are not a pure race in the sense of unmixed blood. No pure-blooded race will habitually sport in breeding as do the imported mothers from Italy. But the Italian bee is a distinct type or variety of bees, and there is no impropriety in speaking of them as pure Italians.—G. W. DEMAREE.

1. Yes. I know this will meet some opposition, but I do believe the queens and bees we get from Italy are pure Italian bees, regardless of color. There may be a slight mixture, but no history that I have read substantiates it. 2. One reason is, they strike a "sporting" country when they come to America, and our fancy-minded bee-keepers are not satisfied to let their home-bred queens take their chance among a whole apiary of Italian bees, but favor them with the yellowest drones. Hence, the bees are brightest. This is measuring everybody's corn by my half-bushel. 3. For some of the reasons above, and others that I do not know, but our potatoes, cabbage, and the like, *will* sport anyhow, and for what reason I cannot tell. This is a deep question.—MRS. JENNIE ATCHLEY.

1. I think the most of the Italian bees are a pure and distinct race of bees. There are distinct races of men, but they all "sport" in color as well as in other characteristics. 2. The Italian bee is not so much bred for color in Italy. Some breeders in this country, by breeding in-and-in, and by the introduction of Cyprian blood, have produced very beautiful bees. This is all right if the more valuable characteristics are preserved, which too often is not the case. 3. I do not know that they sport in color more than the general law of variation produces in pure races.—P. H. ELWOOD.

1. Italian bees are certainly a distinct variety, or as some call it—race. 2. Italians do not breed their bees for color, beauty or golden-bands; while here in America, that appears to be the greatest aim of breeders. In Italy the bees are dark, and there are black (or what appear to be black) bees there too. We noticed this fact while there, and to it we called the attention of the gentlemen who accompanied us, while "on the spot." 3. Italian bees do not "sport" any more than any other animals or plants.—THE EDITOR.

Five-Banded Bees.—Mr. O. F. Wilkins, of International Bridge, Ont., on March 8, 1892, asks this question :

> Who was the originator of that strain of Italian bees known as the "five-banded golden Italians ?"

As we might not give credit to the right person, and thus do some injustice by answering hastily, we invite those interested in these bees to present their claims to priority in private letters to the editor. Then an answer will be given in the BEE JOURNAL in accordance with the facts ascertained in the case. To publish all the letters would result in confusion, and *may* not be advisable. We will determine that later.

Topics of Interest.

Apis Dorsata from Ceylon.

W. P. FAYLOR.

I have just been reading an account a certain traveler gives of this famous bee in Ceylon; and the great wonder to me is why we cannot get this race of bees introduced into this country. They are described as having glossy, blue-black wings; their bodies are striped with yellow and the glossy blue-black; but the golden color largely predominates. This, for beauty, would certainly exceed anything we now have under domestication in America.

This bee is further represented as being about one-fourth to one-third larger than the Italian or German varieties. They build their combs as much as 6 feet in length, and frequently widen them out to 4 and 5 feet. Their cells are said to be about as large as the drone-cells of the common species, and these cells at the tops of the combs are frequently built 3 to 4 inches deep to hold the great amount of honey they gather.

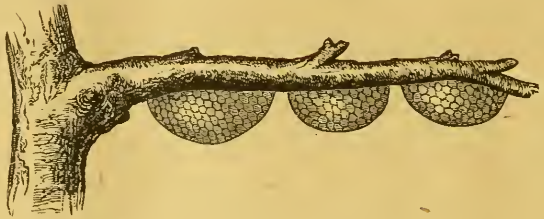
Mr. Frank Benton, who captured 4 colonies of these bees, tells us that they build only one size of cells for workers and drones. Surely, if as represented by Messrs. D. A. Jones, Benton, Kingston and others, these bees would have fine play on the red clover of this country. Not only would they gather honey in abundance from this plant, but they would aid in the fertilization of poor soil.

When I read, a year or so ago, that the United States Government was to appropriate $5,000 for the quest of new varieties or races of bees, I had hoped that "Apis dorsata," ere this time, would be in our possession. In this I have been disappointed. I believe, however, that the Government is willing, but the main difficulty seems to be to find the bee-men who has the courage to go in pursuit of these bees. As there are many settlements now of the English on the island of Ceylon, the safety of visiting that country can be assured.

Now, since queen-bees have been safely sent to Australia from America, it is very probable that queen-bees might be sent from Ceylon to America. The question first to be agitated is, Who will go to Ceylon, start an apiary, and ship queens to this country?

It is to be remembered that queens of the above-named race mate with their drones late in the evening; hence, if once introduced, they can forever be kept a distinct, pure race without intermixing with other races, as all of our present stock will do. Shall we let this matter drop, or shall we keep it before the public?

Mt. Auburn, Iowa.



COMBS AS BUILT BY APIS DORSATA.

Rules for Judging Bees at Fairs.

W. Z. HUTCHINSON.

Taken as a whole, the code of rules for judging bees and honey at Fairs, as given by Geo. F. Robbins, is a good one.

The rules for *judging bees* are not exactly what I would advise. I would limit the nuclei to only one comb each. One comb will show as much—yes, more, than a greater number. With one comb, the queen may always be found. This is often the chief attraction to many. Most people have seen bees, but very few have seen a *queen*. I would not favor a large quantity of bees, because they worry more, and seem to wear themselves out sooner than a moderate cluster. Another thing, a large body of bees makes it more difficult to find the queen. Neither do I see any advantage in a large quantity of brood. It cannot be kept in "all stages," as our friend suggests. Bees in confinement usually quit brood-rearing. At least that has been my experience with single-comb nuclei.

Another thing to which I object, is the placing of the three-banded bees ahead of the four or five banded. If it is the yellow bands that mark them as the yellow race, the greater the number of bands, the greater the perfection in this direction. While my own personal preference might be for the darker strains of Italians, there are so many good men who favor the lighter varieties, that I hardly feel like saying in a Code of Rules that the Premiums shall be given to the "leather-backs." I must say, however, that I have little faith in judging of bees by looking at them at Fairs.

Flint, Mich., March 9, 1892.

Apiarian Knowledge and Experience.

J. W. TEFFT.

Men who would not expect for a moment to ask advice of a lawyer or a physician without paying for it, seem to forget that the same law should hold good in expert bee-keeping affairs.

Apiarists and men who are about to invest money in bee-keeping, or are already in it, will walk into the home of some expert bee-keeper, and ask questions, get and examine plans, and even drawings of some mechanical inventions, or seek advice that none but an educated bee-keeper would be competent to give, without thinking of paying for the service rendered.

The bee-keeper who has graduated from the A B C class in bee-culture, spends more money and time to get his education that does the lawyer or doctor. If a competent bee-keeper were consulted before or after the apiary or device was started by the amateur, there would be fewer failures and disappointments, and it would be a good investment to pay well for such services in any case. Men who want to use the brain and training of these competent bee-keepers without pay, would resent an impeachment of "sponging" on anybody, yet to the expert, making his bread and butter by using his brains and training, they are very despicable deadbeats.

There is another class of men, or a few of the same class, who seem to think that bee-periodicals exist for no other purpose than to do their expert thinking for them. They will ask questions in bee-keeping that any fair bee-keeper in their place could answer in a few minutes. They want you to design a frame, a honey-board and section, and want to know how to manage bees for certain work, for a dozen different purposes, each stating many local peculiarities that materially affect the case; and whose sound judgment is necessary to insure success.

One of this class wrote not long ago, asking for the required sizes of frames, brood-chambers, and honey apartments necessary to keep bees from swarming, and how much more honey could be produced by a non-swarming, wing-clipped queen, etc. Now, I do know barely enough about bees to get along, but what I know about hives is limited—something like my correspondent's information on the same subject.

I wrote him that if I were in his place, I should employ a competent man to work out the problems, and offered to recommend a mechanical bee-engineer, if he knew of none. I received a postal card reply as follows, verbatim:

"The reeson you don't answer wright is becoss you don't know. You bee writers aint so smart as you pertend."

The information covered by the last sentence of the rebuke, came as a great shock to me. But after calmly thinking it over, I decided not to commit suicide, but to struggle along as I had before, without knowing everything.

There is another class who advertise for help in an apiary, that want much for nothing. I answered one, giving experience, hives I have used, age, recommendations, etc. The reply I received is as follows:

"DEAR SIR:—Yours is received. We smiled when we read your age. In brief, we will say, you won't do—won't 'fill the bill.' Too old. We want a man to work the farm, and do all kinds of labor, and had some liking for bees."

I wish to say to those who want something for nothing, that out of every $10 paid to a competent bee-man, $1 is for what he does—the other $9 is for what he knows. It is knowledge that costs, *and that is valuable!* The number of hours labor is of minor importance. Where salaries go into the five figures, "knowing how," is what such salaries are paid for—and how few there are who have the natural ability to learn how; and he who tries to solve the problems in bee-keeping, will find that it takes a little longer than a lifetime.

This is an age of specialists. Each man can learn to be an expert in one thing—if it is only opening clams—and by exchange of products, we can all get expert service in everything that goes to make up our lives. An expert bee-keeper will verify your plans, or point out the weak points in a few minutes, and perhaps save the manufacture of bee-keepers' supplies, or an amateur bee-keeper thousands of dollars; but do not expect his services for nothing, nor that he will charge by the hour. He must have something for the time spent in educating himself, the same as for any other profession.

Buffalo, N. Y.

Italians vs. the Black Bees.

CHARLES WHITE.

On page 325, Mr. Nelson finds lots of fault with the Italian bees. I would like to have the address of the breeders that send out the worthless Italians that Mr. Nelson mentions—I would like to try one or two out of curiosity, as I have never found the traitor in any I have tried, that Mr. N. speaks of.

It is true that the Italians will swarm earlier in the season than the blacks—that is one of their redeeming traits, for if they are properly handled that will do them for the season, while the blacks will get strong enough to swarm about the time they should be working in the sections, and if there is any flow of honey they will surely swarm, and keep swarming as long as the honey-flow lasts.

I will admit that they can be kept from swarming, and have buckwheat for them to work on; that they will go into the sections ahead of Italians, but the Italians will start ten days later in the sections, then catch up with the blacks, if the flow lasts two weeks longer. If the flow should be cut short, and you take what surplus the blacks have put into the sections, then they will starve before Spring. That is one of their traits, to have a hive full of brood when they should have it full of honey.

As for the stinging qualities of the blacks, there is nothing that will beat them except the hybrids, and they have the energy of the Italians and the wickedness of the blacks. I can nearly always tell what kind of bees a man has as soon as he tells me how they act.

I am often asked how I get rid of the moths. My reply is, "Get Italians;" and it is generally asked by those who have blacks.

It is often remarked by visitors in my apiary, that my bees work better than theirs. They say theirs are not working well. I remove the cover of the hive to show them what the bees are doing, and the visitors nearly always say, "Hold on, until I get away!" After getting them over their scare, they are surprised, and say, "My; if I should do that with my bees, they would run me off the farm." I then tell them that mine are Italian bees, while theirs are blacks. They want to know then how I knew they were blacks.

I do not believe there is anything in the climate to make the difference, as I have had queens from a number of different States, and their bees are about the same.

Farmers' Valley, Nebr.

Bees Leaving Hives—Artificial Pollen.

A. C. BABB.

On Feb. 22, one of my colonies came out of the hive and flew around for sometime. I found the queen and put her at the entrance, and in a few minutes the bees were all in. While the bees were out I examined the combs, and found plenty of honey and some brood, but no bee-bread. The next day they came out again, and flew as they did the day before. I managed to secure the queen again, clipped one wing, and put her at the entrance as before, and soon the bees were all in again.

I went to another colony and took out a frame that was well supplied with bee-bread and honey, and gave it to the uneasy colony, which accepted it, and concluded to stay at home and be contented. The next day they went to work on the pollen substitute described below.

I have had the grippe since Jan. 15, and have not done any work the past two weeks, nor been out except when in the warm sunshine. I have not given my bees the attention that they should have had, but they have all wintered nicely so far. They have stores sufficient until the peach bloom opens, excepting the colony above described. It will not be long before the elms and peach-bloom will afford abundant pollen for the bees.

I have been using a substitute for pollen, made of equal parts of wheat and oats ground together. I sifted the bran out, then put the flour on a plank 18 inches wide and 6 feet long, with strips nailed on the sides and ends to hold the flour. I put this out on warm days, only when the bees could fly freely.

Greenville, Tenn., March 1, 1892.

Bees Selecting a Home—Wintering.

R. A. SHULTZ.

I desire to give some of my experience about bees selecting homes. I passed through a farm about 1½ miles south of here one day in the Summer of 1888. There was a large clearing on the farm, and as I passed through the clearing, I came to a party of men around a large white oak which was dead and dry. On approaching them, they said they had gathered there to cut a bee-tree. After looking, I told them that there was no swarm in the tree, as I saw the bees did not act right. They replied that they would cut it anyway, and see. They also had buckets to hold the honey, and a bundle of rags to smoke the bees.

The day was very hot, and they chopped a long time on the hard, white-oak. At last it fell, and they all rushed to where the supposed bees were. There was about a dozen bees in the hollow of that tree, but they soon flew away, and the men took their buckets and axes and went home.

Dr. Robert Valentine had 30 or 40 colonies of bees in round logs, which were about 200 yards off. I supposed them to be cleaning to occupy that tree, as it had a nice hollow, and was dry. I have also followed 3 or 4 swarms to trees, which left after being hived, and went straight to the tree, and it seems as if they knew where the hole was, or they could not go straight to it. They surely have reason enough about them to swarm, find a home, and go to it, or else it is a kind of "high grade instinct."

Bees have some curious movements. I had a second swarm to come out last Summer about 9 o'clock in the morning, and I hived them. At 12 o'clock they were swarming again, and they did not cluster, but swarmed on until it was about dark, and then went back into the hive they were first put into, and the next day they went to work and did well.

I packed my bees for Winter in a straight row out in the yard. I first placed the hives close together, covered the alighting-boards with thin boards cut for the purpose, so as to give an entrance. I then put up posts at each end, and nailed on a plank 16 feet long, letting the first come down on the boards over the alighting-boards. When boarded up the right distance, I put the packing in, and covered over with boards. I think this a cheap way to pack bees for Winter, and they keep warm. But there is one trouble about it—the bees are apt to get mixed, and kill each other. I have lost one colony with diarrhea this Winter, but the rest seem to be in good condition, with sufficient honey. They have been gathering pollen for some days, but it is cold with frost this morning.

Cosby, Tenn., March 3, 1892.

Rendering Wax from Old Combs.

S. H. HARRISON.

I have tried various methods and contrivances for rendering wax from old combs, and the best thing I have tried until now, is Doolittle's solar wax extractor, which I tried last Summer in Colorado; but having a small quantity of combs and fragments here that I did not wish to throw away, I began to think how I could do it best, and with the least cost.

One night after going to bed, the matter of a cheap wax extractor came into my mind (*a la* Doolittle), and the thought struck me, Why not have a tin spout, made the shape of the tin part of Doolittle's extractor, only not so large, but perhaps a little longer, with a solid head at one end, and a bar of tin across near the other to hold it in shape; then take a piece of tin about 1½ inches wide, double over both edges, leaving the bar about ¾ of an inch wide, and long enough to bend in proper shape to form two legs, raising the end with the head in about 2 inches, and spread enough to keep the spout right side up.

Then take a piece of wire cloth, place it in the spout, pressing it to the bottom, but let one end rest on and over the bar across the lower or front end.

Put the combs or wax in the spout, or above the wire cloth, and (if the "better half" is good natured) set the whole in the oven of the cook-stove, placing a dish under the lower end of the spout, which projects a little from the oven, to catch the wax as it runs out. It works all right. Twenty-five cents is the expense of mine.

Mankato, Kans.

When to Spray Fruit-Trees.

JACOB MOORE.

Some time since I sent a request to Mr. James V. Mickel, of Ionia, Mich., for a statement of his views on the subject of spraying fruit trees. He has sent to me the following reply, which I think will be interesting to the readers of the AMERICAN BEE JOURNAL, and so I send it for publication. He writes thus:

DEAR SIR:—Your favor requesting me to write a short article giving my experience in spraying fruit trees, is received.

Your first question, as to when is the proper time, I will have to answer there can be no date fixed, as the seasons vary so much. Some seasons would be a week or ten days later than others, and *vice versa*. My experience is that the best time is when apples or pears are about the size of a small cherry. The codling-moth does not deposit her egg until the blossom is fully opened, and I think a large majority of them are deposited after the blossom has fallen off. I should not expect to receive much benefit, if any, by spraying while the trees were in blossom, but, on the other hand, I should fear injury by causing the fruit to blast.

It may be asked, why I recommend waiting until the fruit is as large as a cherry.

First, because I have found that for two or three days after the blossoms fall, the stamens and pistils remain in the calyx, which makes it difficult to force the spray into the calyx just where it is wanted, the stamens and pistils seeming to break the force of the spray.

Last, but not least, we want the time as short as possible between the spraying and the hatching out of the egg, because at that time of the season we are liable to have heavy rains, which would make it necessary to do the work all over again. I am satisfied that a second spraying, a week or ten days later, would well pay for the expense; but in my own case it has been impracticable, on account of the work I have had to do at that season of the year, having an orchard of nearly 3,000 trees, in all my different kinds of fruit.

I would say for those not fully acquainted with the results obtained by spraying, that the codling-moth deposits her eggs when the tree is in blossom, or soon after in the calyx or "blow" end of the fruit, where it hatches out in ten days or two weeks, and immediately bores and eats its way to the center of the fruit.

Now, our object is to spray some of the poisoned water into the cup-shaped calyx, where it dries down and remains until the worm hatches, and so when it eats its first breakfast, it is also its last one.

In conclusion, I would say that as to whether or not the spraying of fruit trees is injurious to the honey-bee, I think I have fully answered when I say it is improper and injurious to the fruit crop to spray when the trees are in blossom. J. V. MICKEL.

Ionia, Mich., Feb. 29, 1892.

Prevention of After-Swarms.

THEODORE HEISS, JR.

I noticed in the AMERICAN BEE JOURNAL that the subject of "Prevention of After-Swarms" has attracted some attention. Mr. Cronkleton claims to be in possession of a secret *modus operandi*, which he offers for sale, by which bee-keepers might be benefited. Regarding this proposition, I venture the following assertion: I know of a simple procedure which will produce the same effect, and my *modus operandi* is offered free of charge.

My method is the following: As soon as a swarm issues, I mark the parent colony, and the next day I uncover the hive and introduce a virgin queen by simply allowing her to run in between the combs. This simple transaction will prevent after-swarming, for the following reasons: It is a well-established fact, that by departure of the old queen, the queenless colony depends upon its queen-cells for its future queen, and as the first queen thus hatched destroys all the remaining queen-cells, unless signaled by the "piping" of a second queen, this new queen will take the old queen's place, hence there will be no after-swarming; the queen, if signaled, will leave with part of the bees, called an after-swarm. As the next queen (No. 2) hatches, if signaled by a third, another swarm will issue, and so on.

By introducing a virgin queen about two days old (which every bee-keeper should have at that time), all queen-cells will be destroyed by that queen, which will be mated in a few days, thus effectually preventing after-swarming, and advancing brood-rearing from 10 to 15 days.

According to my experience, bees in such a state of queenlessness never destroy a virgin queen introduced at the top of the hive, the bees not knowing whether such queen came out of their own cells or not.

Colonies thus treated will not only discontinue swarming, but if given sufficient space, will not give a swarm for the rest of the season.

If this method should not happen to be identical with Mr. Cronkleton's mode of operation, it certainly will answer the intended purpose.

Panama, Iowa, March 7, 1892.

Spraying Fruit-Trees While in Bloom.

SAMUEL UTZ.

On page 223 I notice an article by Mr. John G. Smith, on spraying fruit-trees while in bloom. There is no doubt in my mind that he is right. We all know Paris-green is poison. My neighbors and I sprayed our fruit-trees last Spring with Paris-green—⅛ pound of Paris-green to 50 gallons of water. I only sprayed about half of my trees, but those that were sprayed were no better than the rest.

We all did the spraying before the trees were in bloom, so there were no bees killed; but now some of our neighbors say that it was the wrong time; that they will spray there trees this Spring when in full bloom. Now I would like to know through the AMERICAN BEE JOURNAL whether we as bee-keepers must let them go on and kill our bees, or is there any way to stop them from spraying the trees while in bloom? If not, then we as bee-keepers are in a bad condition in this part of Ohio.

I have kept bees over 40 years; they are my pets, and if they were poisoned, I would feel very badly. I have 55 colonies, all in good condition, packed on the summer stands. I packed some with wool cushions on two sides, and a wool cushion on top. My best Italian bees are packed on four sides with wool cushions, and one on top. In this way I have never lost any bees. One and a fourth pounds is plenty of wool to pack one colony.

I notice on page 216 that Mr. Doolittle and wife were both down with *La Grippe.* I can sympathize with them, for I have been down for three weeks with the same disease. I am some better now, but not well yet.

Kenton, Ohio, Feb. 23, 1892.

Black Bees vs. the Italians.

IRVIN GROVER.

Statements like those of John H Blanken, on page 253, hardly need a reply, but for those who are unacquainted with other races of bees, something more may be said. I am not a queen-breeder, but keep bees for pleasure and profit—the more profit, the more pleasure to me. I have tested the blacks by the side of the Italians, and have found the Italians superior in every point mentioned by Mr. Blanken.

Last season I arranged two hives side by side for extracting, one colony was blacks, the other Italians; very nearly alike in strength when the honey harvest came, but at each extracting I got more than double the honey from the Italians, and had to feed them less in the Fall for Winter stores. It would be as sensible to claim the box-hives or log-gums were superior to the frame hives as to claim that black bees are better than Italians.

As for giving the blacks more smoke when handling, my experience is that it causes them to stampede clear out of the hive, and that I do not like when I am hunting for a queen.

Most bee-keepers have the Italians, and know them to be superior.

Mr. L. C. Root, in "Quinby's New Bee-Keeping," says that a queen can now be bought for $2, that in 1860 would have cost $20—the price Mr. Quinby paid for his first queen. If the investment paid then, it surely must now.

Cooperstown, N. Y.

Bee-Scouts Selecting a Home.

A. J. DUNCAN.

If the subject of bee-scouts is not entirely exhausted, I would like to give a little of my experience. I think it was in the Winter of 1884-85 that was so disastrous to bees—nearly all the bees in this part of the country died—I lost all I had (38 colonies).

In the Spring I succeeded in buying one colony, and took 2 on shares; being in hollow logs I transferred them to movable-frame hives. Of course, about swarming time I watched my bees with a great deal of interest. I had cleaned out the hives nicely, and stacked them upon each other perhaps 3 feet high.

One day I noticed a few bees working in one of the hives, but supposed they had found a little honey. The next day the number was considerably increased, and they were working in two hives that were about a foot apart, the entrances being towards each other. They kept getting stronger each day until the fourth day (I think it was about 10 o'clock a.m.) I heard a roaring, and saw a *very* large swarm of bees, or rather 2 swarms. They settled on these 2 hives, and went right in as fast as they could go. A queen was in each hive, and they divided fairly well. It might have been an accident that the queens took separate hives, but it was hardly an accident that the bees came here.

Again, last Summer I had a very large swarm come out. The bees clustered, and I hived them nicely in a good, clean hive, as I thought. The next forenoon they came out and started for the timber, which was close. I followed them; they went slow, and I nearly kept up. They went straight to a squirrel-hole in a hollow limb, and went in as fast as they could get in. Now, did they know where they were going to, when they started?

While I think a large majority of bees select a place to go to before they swarm, I think some do not, but wander aimlessly around, and finally perish.

Hartford, Iowa, Feb. 20, 1892.

Poisoning Skunks in the Apiary.

WM. C. WOLCOTT.

I notice by recent articles in the BEE JOURNAL, that some bee-keepers have been troubled with skunks in their apiaries. I think that my way of getting rid of these pests is better than those of some others.

My bees, in the Summer, are from 30 to 60 feet from the house. I have short pieces of board with one end on the ground, and the other end resting against the hive bottom-board, near the entrance to the hive.

A few years ago my bees were somewhat troubled with the skunks. In the morning, when I went out, I found several boards knocked down, and some entrance-boards on the ground.

I used no trap to catch the skunks, but got a bottle of strychnine and an egg. I broke a hole in the small end of the egg, and then took strychnine enough to make a ball about as large as a common-sized pea; I pulverized it very fine, and put it in the egg and mixed it with the egg, which I then put by the hive.

After the skunk eats the egg, it will be found dead within three rods of the hive. I have killed a number of skunks in this way, but never had one get more than three rods from where it ate the egg. I never have had one leave any unpleasant odor around the house. I found one dead with the egg-shell under its neck, where he ate it. I have not been troubled with skunks for five or six years.

Eldorado, Wis.

Mating of Queen-Bees, Etc.

JOHN D. A. FISHER.

I have read and re-read with much interest Mr. Geo. S. Wheeler's article on page 106. From his stand-point, queen-breeders could sell tested queens that they call pure, and yet they would be mismated and produce hybrid bees with three-yellow bands. From this stand-point all a queen-breeder would have to do, would be to keep his queens very yellow, and he would be sure to get the three yellow-banded bees; whether the queens mated with Italian or black drones, the yellow bands would come all the same.

My experience has been very different from the above. I have bought some large and beautiful yellow Italian queens from noted queen-breeders. I have reared young queens from these beautiful mothers, and whenever one of these young queens mated with a black drone, she produced hybrid bees.

Last June I had a very large, bright yellow queen. She was the largest and the prettiest virgin queen I ever saw. How I did want her to mate with one of those beautiful Italian drones then flying in my yard! But to my disappointment, when her young bees began to hatch, about half of them had no yellow bands.

I have two beautiful yellow Italian queens in my yard now, that produce bees about half of which have no yellow bands.

I cannot agree with Mr. Wheeler, that an Italian queen mated with a black drone will produce all well marked worker bees. It would place our noted queen-rearers in a position that they could not guarantee a queen to be pure. If a man would send to me for a selected tested queen, and I had a beautiful yellow and large queen that had produced beautiful three-banded bees, I would call her a purely-mated queen, and mail her at once. My customer would be disappointed when he found out, in trying to rear pure queens for sale from the queen I had sent him, that she had mated with a black drone! No, sir; I believe that "black blood" mixed up with the yellow will tell every time. Such has been my experience, and I have been so taught by the bee books and papers. I would like to hear from Mr. Doolittle, or some other noted queen-breeder, on this subject.

Italian drones are more active than the blacks. I believe that with equal numbers of the Italians and blacks in the same yard, the Italians will predominate; that there will be a larger percentage more of the young queens mated with Italians than with the blacks, there being no advantage on either side by the bees in the surrounding country.

I have in my yard a fine Italian queen that produces bees with three nice yellow bands; from the bands out is a beautiful gray. The drones of this queen are very smart and active, flying when no other drones are flying. This smart trait is in all the daughters of that queen, and a large percentage of my young queens are mated with the drones from three of these queens. I can tell by the steel-gray color on the rear ends of the bees from the yellow bands out. The bees of these queens show the same activeness, and are about the best I have in my yard.

I am very much interested in this queen question. If a queen mated with a black drone will produce all beautiful three or more yellow banded bees, I want to know it. I also want to know how to test a queen, if Mr. Wheeler's theory be true. I do not write this to get up a controversy, but I want light, and I hope that the old veterans will be kind enough to "turn on the light."

Woodside, N. C.

◆

If You Want to know how Queens are fertilized in upper stories, while an old Queen is laying below—how to *safely introduce* Queens at any time when bees can fly—all about different bees, shipping Queens, forming nuclei, multiplying or uniting colonies, etc.—send us $1.00 for "Doolittle's Queen-Rearing;" 170 pages; bound in cloth, and as interesting as a story.

CONVENTION DIRECTORY.

Time and place of meeting.

1892.

Apr. 6, 7.—Texas State, at Greenville, Tex.
A. H. Jones, Sec., Golden, Tex.

Apr. 7.—Utah, at Salt Lake City, Utah.
John C. Swaner, Sec., Salt Lake City, Utah.

Apr. 7, 8.—Missouri State, at Warrensburg, Mo.
W. S. Dorn Blaser, Sec., Higginsville, Mo.

Apr. 21.—Colorado State, at Golden, Colo.
H. Knight, Sec., Littleton, Colo.

May 5.—Susquehanna Co., at Brooklyn, Pa.
H. M. Seeley, Sec., Harford, Pa.

May 28.—Haldimand, at Nelles' Corners, Ont.
E. C. Campbell, Sec. Cayuga, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Eugene Secor..Forest City, Iowa.
SECRETARY—W. Z. Hutchinson....Flint, Mich.

◆

National Bee-Keepers' Union.

PRESIDENT—James Heddon ..Dowagiac, Mich.
SEC'Y AND MANAGER—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

First Swarm this Season.

I am one ahead, and will bet that we caught the first swarm of bees of the season. It came about in this way: We have been stimulating our bees by placing hay along the front of the hives, then pouring syrup on the hay, and the bees helped themselves on fine days. February 3 was a very fine day, and a starving swarm came and clustered on one of our hives. It is a fair swarm of hybrids, and the queen is active and healthy. This would appear that they knew whether they would be cared for.

MATTIE ROBY.

Chanute, Kans., March 5, 1892.

◆

Open Winter and Typhoid Fever.

We have had an open Winter with the exception of a few weeks in January, when it was quite cold. We had two weeks of sleighing. Bees have had flights quite often. This month, so far, has been mild. I wintered my bees on the summer stands in single-walled hives. I leave the section-case on, and put a chaff cushion on that, which fills the case. I raise the back of the hive so the water will run out. My loss, so far, is one colony, by starvation, out of 37. The last few days have been like Spring, and bees have been on the wing from morning until night. To-day they brought in pollen. The most of them are in good condition. I came from Orono, Mich., last April, and brought my bees with me. We came here to farm and keep bees. My two boys came with me, one was 24 years old, and the other 20 years. But, alas! our two dear boys are lying in the silent tomb. We are living in sorrow and despair. They were our two youngest boys, and there is now no one to comfort us in our old age. One died Oct. 15, and the other Dec. 9. We hope to meet them in that better world. They died with typhoid fever. We shall go back to our old home in Michigan in the Spring. Last year was a poor season in this locality; but very little surplus honey was secured. L. REED.

Havana, O., Feb. 24, 1892.

Grading of Honey.

The grading of honey, as published, is not suitable for me. Some years we have the whitest, clear buckwheat honey—so clear that we could see through a section of it, by holding it up to the light; and some years all our honey is very dark, but last year we had every color or flavor you could think of. SETH NELSON.

Keating, Pa., March 6, 1892.

Experience in Wintering Bees.

Last Spring I put out 6 colonies of bees in fair condition, and in the Fall I had 21 colonies—the 6 having increased to 20, and one came here and clustered in the yard. On examination, I came to the conclusion that 18 of them would winter, but having no special place for them they were left on the summer stands until last month, when I found 7 of them were dead. The remaining 11 I placed in the cellar, where they should have been put in the Fall, but the cellar being full, and the weather being mild, they were left out. Those in the cellar seem to be doing well now. There is much complaint here that those that were cellared early were restless and uneasy. Those that were left out-of-doors were taking a cleansing flight yesterday and day before, but they have consumed a large amount of stores, as we have had several very cold snaps—30° below at one time. I am pretty thoroughly convinced that the best place to winter bees, as far north as this, is in a good cellar, that is free from vegetables, or anything that has a tendency to make it damp. We have had two very poor seasons. I did not get a pound of surplus honey in sections last season. L. J. CLARKE.

Wiscoy, Minn., Feb. 27, 1892.

Preventing After-Swarms.

I see my name mentioned on page 311 by some correspondents who ask whether my method of preventing after-swarms is a humbug. I wish to thank you for your unselfish answer. I presume now that I am expected to offer an explanation. I am no humbug; neither is my method a humbug. I am neither deceived in it, nor do I wish to deceive others. I sent out 300 circulars as a feeler, thinking that if there was a disposition to want it, I would then advertise it in the different bee-periodicals. I do not blame any persons for making inquiries, but they should be careful not to get me or any one else into disgrace unthinkingly. E. J. CRONKLETON.

Dunlap, Iowa, March 7, 1892.

[We still think that the plan we proposed would have been better than to have spent the money for the circulars. That would have inspired confidence, and have been perfectly safe on both sides. But as you thought otherwise, and acted independently, you have no one to blame for the result.—ED.]

Drones in February.

On page 294, Mr. Davis speaks of drones in February. It is a very uncommon thing at this season of the year this far north; although I saw drones in a colony of bees yesterday (Feb. 26); also two perfect queen-cells, and plenty of drone-boood. From the indications, they are preparing to cast a swarm. The colony that has the drones wintered on the summer stands; they belong to a friend, about two miles from my apiary. CHARLES WHITE.

Farmer's Valley, Nebr.

Almost a Failure for Two Years.

I have been on the sick list a good deal of the time since last Fall. My honey crop for two years past was almost a failure, averaging about one-tenth of a crop for the two seasons. That is small pay for the labor, still I shall press on and hope for the future. My bees, the past two seasons were, I think, in fine condition for the work, but the honey was not to be had from the flowers. I shall work to make a success of it this year.

The Illustrated Home Journal for March came to-day. My wife is pleased to see her name on the list for premiums. It will come good to her in our close times. J. W. Sanders.

Le Grand, Iowa, March 7, 1892.

Five-Banded Italians.

Mr. Robbins, on page 284, wishes to make three bands the test for Italian bees at fairs. This test practically leaves out the five-banded Italian bees. Judges of fairs have already ruled out the five-banded ones ; claiming there are no such bees !. Either make the test four or five bands, or make a separate class for the five-banded Italian bees. To recognize the fact that Italian bees *may* have *more* than three bands will lend encouragement to those engaged in developing a race of bees for beauty as well as business. J. F. Michael.

German, O., March 7, 1892.

Judging Bees at Fairs.

On page 284, Mr. G. F. Robbins has given rules for marking bees, queens, honey, etc., exhibited at Fairs. I have no comment on them except on the rule for marking bees to get a standard. He says that the standard for Italians should be uniformly three yellow bands, plainly visible, and that such should stand before four, five, or promiscuous banded bees, and the leather-colored before the golden or light yellow ; the reason being that the prevailing verdict is in favor of the darker colored Italians as a bee for business. A great deal has been said as to which is the pure bees—the three or more banded ones. Messrs. Doolittle, Vandruff, Alley and others claim that the Italians are a hybrid, and they are as good authority as we have. If that is the case, would it be right to say that the three-banded shall be the standard ? But I will admit that we should have some standard. It seems to be a fact that if we take a number of imported Italian queens, and select the yellowest of the lot, and rear queens from them, mating them with drones of the same, that in about the third generation we will have yellow bees. And who is to say they are not as pure as the three-banded ? The three-banded bees are the lowest type of Italians.

Sheffield, Ills. A. L. Kildow.

To Indiana Bee-Keepers.

The names and post-office addresses of those who have represented our industry at the County and District Fairs, and those who are thinking of making an exhibit at the World's Fair, are wanted by a committee appointed by the Indiana State Bee-Keepers' Association. They are wanted to submit to the authorities who will assign the proper space, give needed information, etc. It is hoped that Indiana bee-keepers will take a lively interest in the work, as we have the resources, and there is no reason why we cannot have as good a showing as other States. Please send names to Walter S. Pouder, 175 East Walnut Street, Indianapolis, Ind.—Dr. E. H. Collins, R. S. Russell, Walter S. Pouder, *Committee.*

Wavelets of News.

Pure Food Legislation.

The Paddock Pure Food Bill now before the United States Senate, is one in which every bee-keeper should be interested. The bill provides for the prevention, by government inspection, of the mis-branding or mis-labeling of all articles of food and drugs. In other words, if a can containing honey is marked "Pure Honey," it will necessarily be exactly what the name implies, and not an adulteration.—*American Bee-Keeper.*

Africa at the World's Fair.

Remenyi, the well known violin virtuoso, has made application for a space of not less than 400 square feet in which to exhibit his great collection of rare African ethnological specimens.

The selection, which comprises over 1,500 carefully selected specimens, has been formed during the last forty years, and is beyond question the most perfect of its kind. It is especially rich in the ancient regal symbols in use among the Zulus, including sceptres, royal bracelets, which were used instead of crowns, and other emblems of hammered silver, of carved and polished ivory, and of rhinoceros horn. The royal bracelets are especially interesting. They are hollowed rings made from transverse sections of huge elephant tusks, and, until his death, were never taken off, after once placed on the arm of the king.

There are also several splendid specimens of the exceedingly rare and beautiful royal silk mantles of the sovereigns of Madagascar, three hundred and more years ago. These mantles are curiously adorned with broideries of metal, and of uncut precious stones, and of feather work. Every specimen in the collection is perfect and unique of its kind.

Stray Straws.

Gray beards were in the majority at the Ohio State Bee-Keepers' Convention. I never saw so large a proportion in a gathering of bee-keepers.

The *White Mountain Apiarist* suggests that "some bee-keeper living in or near Chicago, open a boarding-house for bee-keepers during the World's Fair in 1893."

Editor Newman looks a good deal as if a train of cars had run over him. But the grippe has not taken all the grit out of him. Just say "adulteration" to him, and you will find he is not dead yet.

An Almanac is very handy in a family to keep track of the days of the month; but if you subscribe for the "old reliable" AMERICAN BEE JOURNAL, it will keep you straight as to the day of the week. Never misses.

When a man gets up in a convention and begins: "I am only a learner, but I wanted to ask the best way to do" so and so, you may look out for a plan of his own that he will fight for as away ahead of any other, and nine times out of ten it is either old or worthless.—DR. C. C. MILLER, in *Gleanings*.

Bees on Summer Stands in March.

March is one of the most trying and severe months of the year in this latitude. The alternate sunshine and clouds together with the cold winds, destroy thousands of bees by alluring them out of the hives, and chilling them so they are unable to return.

This is one of the main causes of Spring dwindling, which is so much feared by Northern bee-men. It is almost impossible to prevent the bees from coming out the hive when the sun is warm, even though the air is cold. There are, however, some fine days in March, and these should be utilized to their full extent.

Feed your bees rye meal by placing it in shallow boxes in a sunny spot near the apiary. They will soon find it and carry in large quantities for food for the young brood. This is especially useful if the hives do not contain much pollen. It also keeps them at work near home when the weather is too cool for them to forage in search of natural stores.

They should also be fed a thin sugar syrup to stimulate them to breed strongly. Feed regularly whenever it is warm enough for the bees to carry it into the hive.

The brood-nest may also be enlarged by inserting an outside comb between two which contain brood. The queen will soon fill it with eggs. This must be done with great caution, as the brood will become chilled if there is more than the bees can care for, which would be worse than to do nothing.

See that the hives are cleaned out, and all dead bees removed. Also contract weak colonies by inserting a division-board, thus making the brood-chamber warmer.—L. J. LOWMAN, in the *Indiana Farmer*.

Honey-Dew for Winter Stores.

No need to ever tell us again that bees will winter just as well on honey-dew as on the best of honey. They won't do it! It is true that bees left on the summer stands will manage to exist on it if there are frequent warm days, when they can fly.

Perhaps in such seasons as the past, it would be just as well to leave them out even unprotected, and run the chances of an open Winter. But having the bees now in the cellar, and knowing their unfavorable condition, what had better be done? We advise to set them out during this month, and will practice what we preach.—C. H. DIBBERN, in the *Western Plowman*.

The Fourth Annual International Fair will be held at Detroit, Mich., from Aug. 23 to Sept. 2, 1892. For further particulars, address James E. Davis, Sec., 204 and 205 Hammond Building, Detroit, Mich.

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For	50 colonies (120 pages)	$1 00
"	100 colonies (220 pages)	1 25
"	200 colonies (420 pages)	1 50

☞ As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.

YOU NEED an Apiary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for $1.25; or for 200 colonies for $1.50. *Order one now.*

◆

Supply Dealers desiring to sell our book, "Bees and Honey," should write for terms.

◆

We Club the American Bee Journa and the Illustrated Home Journal, one year for $1.35. Both of these and Gleanings in Bee Culture, for one year for $2.15.

◆

If You Have any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time.

◆

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

◆

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

◆

When talking about Bees to your friend or neighbor, you will oblige us by commending the BEE JOURNAL to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the Convention Hand-Book by mail, postpaid. It sells at 50 cents.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club.*
The American Bee Journal	$1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	2 00	1 75
The Apiculturist	1 75	1 65
Canadian Bee Journal	2 00	1 75
American Bee-Keeper	1 50	1 40
The 7 above-named papers	5 75	5 00
and Langstroth Revised (Dadant)	2 40	2 25
Cook's Manual (1887 edition)	2 25	2 00
Quinby's New Bee-Keeping	2 50	2 25
Doolittle on Queen-Rearing	2 00	1 75
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 50	1 40
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 50	1 35
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
Toronto Globe (weekly)	2 00	1 70
History of National Society	1 50	1 25
American Poultry Journal	2 25	1 50
The Lever (Temperance)	2 00	1 75
Orange Judd Farmer	2 00	1 75
Farm, Field and Stockman	2 00	1 75
Prairie Farmer	2 00	1 75
Illustrated Home Journal	1 50	1 35
American Garden	2 50	2 00
Rural New Yorker	3 00	2 25
Nebraska Bee-Keeper	1 50	1 35

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

◆

Winter Problem in bee-keeping; by G. R. Pierce, of Iowa, who has had 25 years' experience in bee-keeping, and for the past 5 years has devoted all his time and energies to the pursuit. Price, 50 cents. For sale at this office.

◆

The Honey-Bee; Its Natural History, Anatomy and Physiology. By T. W. Cowan, editor of the *British Bee Journal*, 72 figures, and 136 illustrations. $1.00. For sale at this office.

◆

A Nice Pocket Dictionary will be given as a premium for only **one new** subscriber to this JOURNAL, with $1.00. It is a splendid little Dictionary—just right for the pocket. Price, **25 cents.**

The March Number of the "Phrenological Journal and Science of Health" is more than usually supplied with interesting personal or biographical sketches. The editor speaks feelingly and judiciously regarding the late Duke of Clarence and Avondale, and is rather pointed in his condemnation of those who show a fire-eating spirit as concerns the Chilian affair. All the departments of the magazine are worthy of mention, but the best reference is to the "Phrenological" itself. Price, $1.50. Single numbers, 15 cents. Address, Fowler & Wells Co., 777 Broadway, New York.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

WANTED—An agent in every county for our New "St. Joe Hive." ST. JOSEPH APIARY CO., St. Joe, Mo. 10A3t

FOR SALE—100 Colonies of Bees and 50 empty Hives, all Langstroth. Address,
FRANK PINKERTON, Marshalltown, Iowa.
12A2t

WANTED—Bee-keepers to send for my price and samples of Comb-Foundation.
JACOB WOLLERSHEIM, Kaukauna, Wis.
1Atf

WANTED—A situation in an apiary or hive manufactory. I am willing to make myself generally useful. J. W. TEFFT.
5Atf 318 Swan St., Buffalo, N. Y.

WANTED—To exchange Bees, Honey and Supplies for Cash or Tinners' Tools.
J. A. BUCKLEW, Warsaw, Coshocton Co., O.
5Atf

TO EXCHANGE—A 10-inch Pelham Foundation Mill, in No. 1 order, for offers or cash. Write for Circular of Bee-Keepers' Supplies. JNO. NEBEL & SON, High Hill, Mo.
10A3t

FOR SALE—The Apiary of Solomon Vrooman, deceased, consisting of one hundred and seven Colonies, and all necessary appliances. For many years the apiary of J. H. Martin, Hartford, Washington Co., N. Y. For particulars, address,
F. S. ELDREDGE,
12A3t 11 N. Church St., No. Adams, Mass.

FOR SALE—20 Acres land in Berkeley Co., W. Va., 5 miles west of city of Martinsburg—the county seat of Berkeley. The following varieties of fruit upon it in full bearing are—55 apple-trees, 130 grape-vines, 20 cherry-trees. Buildings in good and substantial condition. Dwelling-house, smoke-house, corn-crib, stable and spring-house, with a never-failing spring of pure water. Good location for Bees and Queen-Rearing. Price, $500.
Address, WILL THATCHER,
12A2t Martinsburg, Berkeley Co., W. Va.

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ONE DOLLAR PER YEAR.

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THOMAS G. NEWMAN,
EDITOR.

Vol. XXIX. Mar. 24, 1892. No. 13.

Editorial Buzzings.

The Tissue of the life to be
We weave with colors all our own,
And in the field of destiny,
We reap as we have sown.

◆

The Apiarian Exhibits at the World's Fair are subjects of much inquiry now. The following comes from one of our correspondents:

> I see in the HOME JOURNAL, page 85, that space at the World's Fair must be applied for on or before July 1, 1892. I would suggest that you give plain directions as to whom to apply, and the expense of space, in the AMERICAN BEE JOURNAL and HOME JOURNAL, and oblige your MANY FRIENDS.

Apply to Mr. W. I. Buchanan, Rand-McNally Building, Chicago, Ills. There is no charge for space. Until a Superintendent is appointed for the Apiarian Department, nothing definite can be arranged.

A Sample of willow-herb honey was brought to our Museum last week by Mr. L. S. Benham, of Petoskey, Mich. Its botanical name is *Epilobium angustifolium.* It is prolific in common names. It is called (besides willow-herb) bay-willow, blood-vine, blooming Sally, French-willow, Persian-willow, rose-bay, rose-elder, etc. It is also called "fire-weed," because its downy seeds blow to great distances, and finding a lodgment, their vitality makes them burst forth, wherever brush is burned or forest-fires rage." Its beautiful pink flowers cover vast tracks of land in Northern Michigan, where it is the source of immense yields of honey—rivaling, if it does not surpass, the famous honey harvests from the red raspberries of that peninsula. Mr. Benham says it is his main source of honey. The honey is white, has a heavy body, and is of pleasant flavor.

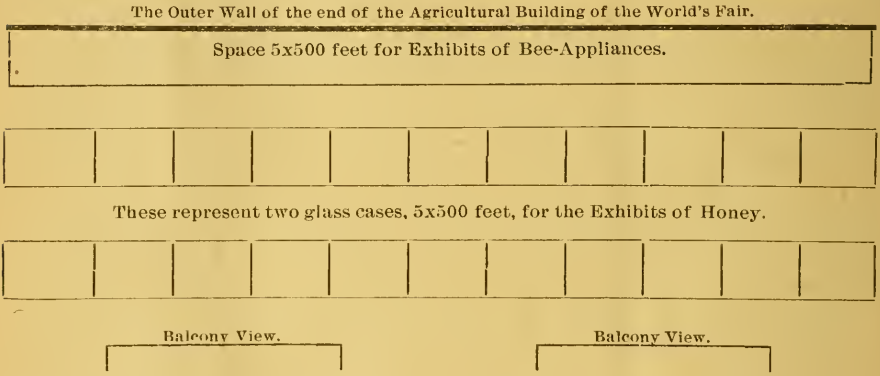
◆

Last Week we had an interview with W. I. Buchanan, Esq., Chief of the Department of Agriculture of the World's Columbian Fair. Dr. A. B. Mason, of Auburndale, O., was invited to come here and accompany us. Together we spent the forenoon in discussing all the matters connected with the apicultural exhibit, both as to location, requirements of space, rules for exhibitors, and the quantity and condition of articles to be exhibited.

In the afternoon all three of us went to Jackson Park to see the location offered to be assigned to the Bee and Honey exhibit, and the progress made in the Buildings, and in beautifying the grounds. Both Dr. Mason and ourself were astonished at the general magnificence and grandeur of the whole scene before us.

The majestic proportions of the Buildings were astonishing. For instance, the largest structure covered 31 acres of space, and some of them towered up from 200 to 300 feet towards the sky. Their very solid appearance, as well as their ornamental and architectural beauty were beyond our expectation. They vividly brought to our mind the poetic description of the Holy City as depicted in the 48th Psalm, which we will paraphrase thus, to suit the present case:

> Let Americans rejoice, and let all the people be glad! Walk about the Grounds, and go around about the Buildings; recount the towers thereof. Mark well their bulwarks; consider the palaces of Arts and Sciences, and tell the story of their magnificence to the nations of the World.


The Outer Wall of the end of the Agricultural Building of the World's Fair.
Space 5x500 feet for Exhibits of Bee-Appliances.
These represent two glass cases, 5x500 feet, for the Exhibits of Honey.
Balcony View.
Balcony View.

But the structure of most interest to bee-keepers is the one illustrated on page 281—the Agricultural Building—where the Bee and Honey Show is to be located. It is to occupy the entire end of the second story, to the right, in the picture. It is light and airy, and from that balcony can be seen the grandeur of the exhibits on the floor below.

The space is ample, and the exhibit must be a majestic one—surpassing everything that has preceded it in that line—excelling every other preceding World's Fair, both in America or Europe.

Bee-Keepers have a duty to perform in that direction—to at once prepare their plans to have honey produced in "letters," and in every ornamental device possible; and this must be done during the present season, so as to have it in position at the opening, on May 1, 1893.

The matter of appointing a Superintendent is under advisement, and just as soon as possible it will be done, and then the work will go on at a lively rate until the exhibit fully materializes.

More particulars will probably be given next week, and thereafter as fast as arrangements are completed.

There is to be a large collection of *old* devices (say one of each), including the sun-dried pottery hives of Asia, old hives of wood anciently used in Greece and Rome, and the straw skeps of Europe.

But what is the use of enumerating? The oldest and quaintest of every invention, from the most ancient times, will be there, and any of our readers, whether in America, Europe, Asia, Africa or Australia, are invited to tell us about anything to be obtained anywhere in the World, and we will see that shipping directions are given (without expense to those who may give us the information), and the ancient will vie with the modern exhibit, to make the largest, grandest, and most attractive display ever seen of things apicultural in the "wide, wide World."

☞ "If you have ten dollars to spend," said Barnum, "spend one for the article, and the other nine in advertising it." The old man knew a thing or two about advertising. He also said:

> "I can out-talk anybody on earth but the printer. The one who can stick type, and talk next morning to thousands of people while I am talking to one, is the only man I am afraid of. I want him for my friend."

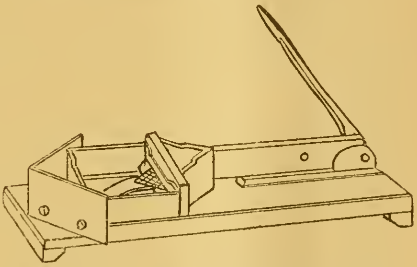
Collective Exhibits at the World's Fair are very desirable, and will, no doubt, prevail. Still some are advocating a division of the exhibits into States. Here are the views of Mr. J. W. Tefft, to which we call attention:

> Do the manufacturers of apicultural implements and the honey-producers contemplate making, at the World's Fair, a collective exhibit of their products?
>
> Doubtless some manufacturers, as well as the honey-producers, will make individual exhibits. But as that plan would perhaps be governed by the wish to advertise their individual product for the purpose of increasing their trade, would not that cheat the chief end of the Columbian Exhibition? By a collective exhibit, would not that tend to the best service?
>
> It seems to me a collective exhibit is desirable on many accounts. The manufacture of apicultural implements is far reaching, and so necessary to the honey-producer, while the honey-producer is the one from whom the manufacturer derives his living, and is the person who produces that delicious, delectable morsel—honey. Therefore, such a universal interest should have a characteristic combination display of the separate products, free from personal design, and based upon four motives:
>
> 1. From an exhalted patriotism, to exhibit to the world at large what our American bee-keepers accomplish in the production of honey.
> 2. To afford visitors an opportunity of knowing of American apicultural implements and the products of American manufacturers.
> 3. To induce criticism, and thereby stimulate inventors of apicultural implements.
> 4. To show to the world the skill of the American apicultural mechanics.
>
> How many are in favor of a collective exhibit? Should the two branches be together, or separate? I know they should be in convention, but in this case I think they should be combined.

Success is sometimes gained at the moment when it is dispaired of. The owner of a patent medicine once succeeded in interesting a capitalist, who gave him a large sum to spend in advertising. He advertised extensively, and in a short time the money was gone. Meanwhile he had not sold an extra bottle of his medicine, in spite of his expenditure. He went with trembling to the capitalist, to tell him that the game was up, and the cash gone. The capitalist was absent, and would not be back for a week. Before the capitalist got back, the tide had turned. Orders began coming in from all sorts of unexpected places. Then the big wholesale men began to send for it, and that medicine firm has an immense income.

A New Section Press has arrived in our Museum. It will work as well with a full size sheet of foundation as with a "starter." It comes from Charles White, of Farmers' Valley, Nebr. He describes it as follows:

> My section press does the work of three machines—section press, foundation cutter, and starter and fastener; or, in fact, it cuts the starter and fastens it in the section all with one motion, thus doing away with the puttering job of cutting foundation and then fastening it into the sections.



Section Press and Foundation Fastener.

> It will do twice the work of other presses that I know of. Any one can operate it. The starters have to be just so, after being put in with one of these machines; the starters will be in the middle every time, and all of one width. The machine will weigh about 8 pounds.

President Secor has been elected a Delegate from Iowa to the Republican National Convention, which meets in Minneapolis on June 7. As that will be swarming time, he will likely be able to help hive the "presidential *bee*," or at least to extricate it from the metaphorical "son-bonnet."

The Object of Living, it seems to us, is to do what good we can, and, like the bees, to industriously store up treasures for our successors, and thus prove ourselves to be the benefactors of the race. This appears to be the lesson taught by our very existence on this planet.

We should be good to ourselves, good to those with whom we are daily brought into business intercourse, and good to those who are less fortunate than ourselves in the battle of life.

"He was good to the poor," is what the people whom he aided declare with one voice of the late Cardinal Manning. These words should be his epitaph. He was good to the poor. Besides giving of his means to them as long as he lived, he also helped them in the far higher and better way of being good to the poor. He looked profoundly into questions of labor and capital, and used his powers of heart and brain to place them beyond the necessity of parish or charitable aid.

The only way to really help a poverty stricken person is to put him upon his own feet and enable him to work for his living. Those who give money to street beggars do more harm than good. So do those who bestow food and clothing indiscriminately upon all who ask it. The ragged creature who pursues street begging for a vocation has sometimes a flourishing bank account, built solely on the weak and sentimental pity of the thoughtless. The true doctrine is that nobody is entitled to a living who does not in one way or another earn it. If the impudent and whining street beggar will not work for his living let him die.

There are organizations that will take all the charity one has to bestow and see that it reaches the worthy poor. Aid to tide over immediate necessities ought to be forthcoming, but in every case the unworthy ought to be made to work or starve. The true helper of the poor will be he who can in some way find work for them to do which the community needs to have done.

Carelessness in ordinary correspondence is so common, yet so utterly inexcusable, that it becomes very annoying to those who wish to conduct business in a business-like way. We have before us a postal card stating that the writer had sent for a sample copy of the Bee Journal some time since, and as he received no reply, he concluded that we failed to get the former request. Of course we did not reply to it if, like the card just received, it had no signature, nor even a post-office address! No doubt this time he will put us down as very unbusiness-like, when we cannot do anything with his request except to "file" it in the waste-basket.

Another postal card has just come, properly addressed to this office, which is even more amusing and useless than the one mentioned above. This one has not even a single pen-mark upon its back—it is a total blank! It may be the sender thought we could stretch our imagination to such an extent, and to such a correct point, as to be able to guess at exactly what the writer desired to say when sending the card to us. We are not adepts in mind-reading, nor at *guessing* at what people want, or who they are, hence we are unable to do anything with such correspondence.

These two instances should serve as an illustration of the necessity of being more careful when doing mail business.

◆

Freight on extracted-honey is very much too high. The National Bee-Keepers' Union, in company with quite a number of apiarists, have for some time been laboring to have the classification on extracted-honey changed to a lower rate, and we hope at no distant time to be able to announce good results. Mr. T. J. Ripley, Chairman of the Western Classification Committee has informed us that the matter will receive due attention at the next meeting of the committee.

◆

Jacob T. Timpe and Estella Houghteling were married Mar. 1, 1892.

Love, Be a Gentle Master.

DORA READ GOODALE.

Love was a stranger.
Without lock or key
He unlocked my bosom,
And took my heart from me,
And now my heart is subject
Everywhere I go.
Be a gentle master, Love,
To one who loves you so.

The bee's wing is fragile,
The lark's egg is small;
That you took was little,
But it was my all.
Bear the captive where you will,
To high estate or low,
But be a gentle master, Love,
To one who loves you so.

—Harper's Weekly.

Queries and Replies.

Virgin Queens and their Progeny.

QUERY 811.—1. If a virgin queen fails to be fertilized, will she lay eggs? 2. If so, will the worker bees of the same colony become fertilized, and lay?—Maryland.

1. Yes. 2. No.—H. D. CUTTING.

1. She may. 2. No.—C. C. MILLER.

1. Yes, but her eggs will produce drones only. 2. No, no.—R. L. TAYLOR.

1. Yes, sometimes—drone eggs. 2. No. Worker bees are never fertilized.—EUGENE SECOR.

1. Very often she will; whether always or not, I cannot say. 2. If I understand this, no.—A. J. COOK.

1. Usually, she will. 2. Sometimes, it is said; but I have never had a case, to my knowledge.—P. H. ELWOOD.

1. Yes, frequently. 2. I had not supposed they would while tolerating the drone-laying queen.—S. I. FREEBORN.

1. Yes. 2. These eggs produce only drones. Worker bees are never fertilized.—G. M. DOOLITTLE.

1. Yes. 2. No. Some of them may lay, but they will not be fertilized, and their eggs will produce only drones.—M. MAHIN.

1. Yes, but the progeny will be all drones. 2. There are occasionally laying workers, but they produce only drones.—MRS. L. HARRISON.

1. Yes. 2. Sometimes, but not usual, as long as the unfertilized queen remains in the hive, and continues laying.—JAMES HEDDON.

1. Yes, drone eggs only. 2. Some laying workers may be developed. Such a colony will soon dwindle out.—C. H. DIBBERN.

1. Yes. 2. I never heard of worker bees becoming fertilized. 2. The progeny of an unfertilized queen would evidently be drones.—J. M. HAMBAUGH.

1. She will, if over three weeks old, but her eggs will all hatch as drones. 2. Worker bees can never be fertilized, but they may lay drone eggs also.—DADANT & SON.

1. Usually, but they will produce only drones. 2. No. Workers may lay, but never become fertilized, and their eggs produce nothing but drones.—J. A. GREEN.

1. Yes, but they will all be drone eggs. 2. Worker bees never become fertilized, yet many of them are capable of laying drone eggs the same as virgin queens.—G. L. TINKER.

1. Yes; eggs that will produce drones. 2. The worker bees are not capable of being fertilized, but will sometimes lay eggs. But such eggs produce only drones.—E. FRANCE.

1. She can lay drone eggs. 2. The worker bees will not become fertilized. Under certain conditions a worker may lay drone eggs, becoming what is called a laying worker.—J. P. H. BROWN.

1. *Perhaps* she will. Such queens usually do. 2. Please tell "Maryland" to read some good bee-book, and he will probably find out that worker-bees never become fertilized, their eggs always producing drones.—A. B. MASON.

1. Yes. 2. The workers never become fertilized, and there is no way of telling, unless you might catch them at it, as the eggs from either queens or workers would produce drones, under such circumstances.—MRS. J. N. HEATER.

1. Yes, but the result will be drones only. 2. I do not understand what is meant by the question. Workers do sometimes lay eggs, and such are misnamed "fertile" workers; but I never heard of a "fertilized worker."—J. E. POND.

1. Yes, but her eggs all produce drones. 2. The way the querist put this question, I hardly understand him. If he means the bees from the above queen, there is none; but if he means the bees that formed the colony before her, I will say that there is no *real* worker bee that even has the power of becoming fertilized; but a queenless colony often contains worker bees that lay eggs, but produce drones also.—MRS. JENNIE ATCHLEY.

1. She may, and she may not. If nothing happens to her, and she is permitted to remain undisturbed in the hive, she will lay eggs that will produce dones only. 2. Worker bees never become "fertilized," but from some strange freak in their nature, a few of them, under favorable conditions, will deposit a few eggs which will hatch out drones. These laying workers only come under observation in case of queenlessness. It would be hard to prove that laying workers ever take part in laying eggs in a hive that has a queen, whether she (the queen) has been fertilized or not.—G. W. DEMAREE.

1. Generally an unfertile queen will lay eggs if she has not been injured in any way. All her eggs will produce drones only. 2. Worker bees are incapable of being fertilized. Sexually they are undeveloped. Any eggs they may lay will produce only drones.—THE EDITOR.

Our Book—Bees and Honey.

A new (the eighth) edition of the well-known work, "Bees and Honey, or the Management of an Apiary for Pleasure and Profit," thoroughly revised and largely re-written, is sent to us by Thos. G. Newman, the author, Chicago. It is a duodecimo volume of 250 pages, adorned with a great number of illustrations (including portraits of all the chief students of the bee, living and dead), and neatly bound in cloth. The price is $1.—*Country Gentleman.*

When Writing a letter be sure to sign it. Too often we get letters with the name of the post-office, but no County or State. One such came recently, and we looked into the Postal Guide and found there were places by that name in 13 States. Be sure to stamp your letter, or it may go to the dead letter office, in Washington, D. C.

Topics of Interest.

Cellar Gasses—Minnesota Convention.

C. THEILMANN.

Mr. Doolittle and others claim that ventilation in a bee-cellar is not needed; that he has no ventilation in his cellar, and his bees winter successfully. I have no reason to doubt that his bees go through the Winter, but it seems to me that they would winter better, and the combs in the hives would be in better condition in the Spring, if the water which is dripping—yes, running in streams down on the inside of the flag-stones with which he has covered his bee-cellar, was carried off either by ventilation or otherwise, and not have everything wet and moldy in the Spring.

Every bee-keeper who has any experience in cellar wintering of bees, knows that there is something wrong under such conditions, which are not in conformity with the good health and welfare of the bees and combs, or, for that matter, most animal life, mankind not excepted. If Mr. Doolittle's theory be true, why should we speak and write so much in favor of ventilating our houses, and spend many dollars for good ventilation? What do we ventilate for, if not for health? Will not some of our scientific men answer these questions, and give us full information in the AMERICAN BEE JOURNAL?

I could give a number of reasons why most of the bee-cellars should have ventilators, but for this time I will speak of only one, as it is rather interesting, and one of which I have never heard or read, except what I wrote a few years ago on "The Creation of Gasses Under Certain Conditions."

Since I wrote about these gasses, there have been a few slight attacks only, but on Jan. 22 they were more condensed in my bee-cellar than ever heretofore.

I arrived home from the convention with Mr. Howe, at 11 p.m. on Feb. 21. The next morning we went to the bee-yard to see how things looked. We entered the first door and shut it behind us, lighted a candle and entered the second door, which was also shut after us. The candle at once became dim and went out, while we tried to enter the third door in the cellar. We went back and lighted the candle again, and got inside of the cellar, but the light went out. With the third trial we had no better success;

the candle after this would not burn right any more, even the first entry, and we concluded that something was wrong with the candle.

So I got another, which burned nicely until we got to the inner door, when it became dim, and with the least movement in going into the cellar it went out. We lighted it again outside, and got as far inside to barely see the register of the thermometer which was at 30° above zero, when the light went out again. I tried the candle once more, held it up high, and then low on the ground, but it would not burn anywhere, and no difference was noticeable when high or low.

The bees were noisy, and that low contented murmur, as when everything is right, was heard. There had been only one degree difference in the temperature since Jan. 19, when no gasses were noticeable. I would also say that it seems as if the gasses penetrate the wick and mix up with the soft and liquid part of the candle, as it took from five to six minutes when burning, in pure air, before it would give its full flame.

After this experiment I opened my 6-inch underground ventilator, also the two upper, which latter were closed to within ½ inch in the center with white frost, and let the cellar rest until after dinner, when I lighted the candle again, and went in. I found that considerable gas had gone out, although the candle would hardly keep alive, and burned so feebly that I had to move very slowly, and hold it occasionally to the lower ventilator to give it new life. In going around I found the gasses less condensed around the walls, and most condensed in the middle of the cellar; no difference was noticeable if held high or low; but after moving through a number of times, it seemed that the gasses parted in clouds, like smoke in a room where a number of persons have commenced smoking.

After these tests, I went to the door (the two outside doors were shut) on the inside, and opened it about ¾ of an inch to see whether any gasses would go out of it, and how it would ventilate. I held the candle to the opening, and slowly moved it up and down, and found a draft of pure air going out of the upper part ⅔ the way down. The current was strongest at the upper end, and became weaker downward, until it reached a perfect stand-still for about 2 inches in length, in which the gasses were so strong that the candle would almost go out. Passing on down, the current slowly came inward, mixed with gasses, the inward current was the strongest at the lower end, and right in the corner the light whirled around horizontally, as in a whirlwind. I have spent 15 or 20 minutes at this door, testing this matter. There are 130 colonies in this cellar, the ground being sandy loam.

My bees would have been badly aroused if I had no ventilators, by opening the doors, or would have been suffocated in the gasses. This cellar will nearly always accumulate gasses when the doors and ventilators are all closed, and the ground is frozen hard on top of the roofing. Since this experience, I have left all the ventilators open, and the air has kept pure, at 40° above zero, but we have had no zero weather since then.

MINNESOTA STATE CONVENTION.

On the morning of Jan. 19, it was 30° below zero, and I was undecided whether or not to attend the convention of the Minnesota Bee-Keepers' Association at Owatonna; but I finally decided to go.

Arriving at Owatonna, I found quite a number of bee-keepers gathered from all parts of the State—more than I had expected, considering the weather and much sickness everywhere. Essays were read, and the different topics on bee-culture were discussed. The subject of spraying fruit-trees was well ventilated at a half-day's meeting with the horticulturists.

A number of different bee-escapes were shown, such as Porter's and others. Mr. B. Taylor showed one of his own invention, which was a little thing, made of tin. It received much inspection.

A number of bee-hives, sections and shipping-crates were exhibited and examined. The writer exhibited the Alpaugh combined section press and foundation fastener, which is probably the most simple and perfect machine for securing straight combs, and have the foundation solidly sealed to the sections.

Mr. Taylor was correct when he held one of the sections of honey in his hand, and said: "It is no wonder that Mr. Theilmann can produce straight combs without separators, when the foundation hangs right in the center of the section straight, and nearly full sheets, solidly sealed, as you see it in this section."

Cellar ventilation was thoroughly discussed, and the conclusion arrived at that in most cellars ventilation is needed in some way. Some ventilate through the doors or windows, and think it just as good as regular ventilators made for the purpose.

As a whole, the convention was a success, and with the present officers the outlook for the future is very promising for a strong and influential Association.

Our thanks are due to the citizens of Owatonna for their kind treatment and hospitality, as they gave us a free hall, board and lodging.

Theilmanton, Minn., Feb. 13, 1892.

Taking Bees Out of Cellars.

B. D. SCOTT.

As the season is advancing, and the moving of the bees from the cellars to the summer stands will be in order, I will offer a few suggestions which have proven successful with me since wintering bees in the cellar.

For several seasons I carried my bees in by hand—one person on each side of a hive—and the traveling was more tiresome than the work. Now I draw them to the cellar on a one-horse wagon, 10 or 12 hives at a time, and in 1½ to 2 hours: Mrs. Scott and I can put in 70 or 80 colonies, and not feel much the worse for our labor, and no one complaining about being stung.

In the Spring, when the time comes for taking the bees from the cellar, after sundown, we use the same wagon and draw the same number of colonies until all are out. No bees fly from the hives, and none are lost. I prefer moving them at night, so that they will become quiet before morning; then when the sun rises, they come out more gradually.

My experience teaches me that it is better to keep out of the bee-yard when 70 or 80 colonies are out for a cleansing flight, unless one has a suit of clothes on for the occasion, or is not very particular.

Bees taken from their winter quarters in the middle of the day become aroused, and, when the hive is opened, rush pell-mell in the air without marking the location of the hive, as the hive was not put in the same place from where taken the Fall before. The bees become lost, and mix with other colonies, or are killed by entering the hives of strong colonies.

Bees taken from the cellar at different times, to be put in the same yard, are more liable to be robbed, as those taken first have marked their location, and are looking for honey, and will take it if it can be found in other hives, if not well guarded. Bees taking a purifying flight, after four or five months' confinement, are in pretty poor condition to protect themselves among a lot of strong colonies that have a disposition to rob.

I have kept bees since the Fall of 1869. At the beginning of my bee-keeping I had bees robbed nearly every Spring, from the fact that I did not know how to prevent it. Late years I have but little robbing at home, and all I have is done by colonies that lose their queens while in the cellar; generally such colonies are attacked the same day of their first flight.

When I discover a colony being robbed, I examine it at once, and shake the bees in front of some hive. I close the entrance to a bee-space, and let them carry the honey out, and keep them as long about it as I can. I let the hive stand where it was robbed. Remove it, and the next hive will be attacked. If I wish to get rid of any old honey, I put it in this hive, and the bees will carry it away, and not trouble any other hive.

I am an advocate of Spring feeding for this locality, as our white honey is white clover and basswood. I have no bee-feeders, but I have fed hundreds of pounds of honey to my bees in the Spring in combs put along the fence, and at the ends and sides of the honey-house; and never, to my knowledge, have I lost a colony by so doing. If I remember rightly, a great many bees were kept within a mile of me, but none are kept to-day. Black bees cannot stand free dinners with Italians.

My bees are all in the cellar wintering finely, and all are alive now. To-day we are having the heaviest snow-storm of the season, the snow falling two feet deep on the level. If an old-fashion Winter brings forth a good honey season, 1892 will be a good one.

Ovid Centre, N. Y., March 1, 1892.

Ohio, Pa. and N. Y. Convention.

GEO. SPITLER.

The 12th annual session of the North-eastern Ohio, Northern Pennsylvania, and Western New York Bee-Keepers' Association was held at Ashtabula, O., Jan. 27 and 28.

Owing to the absence of the President, N. T. Phelps, the afternoon of the 27th was spent by those present in an informal way, giving experiences, and getting better acquainted with each other.

E. Mason, of Andover, O., was elected President *pro tem.*

The attendance was light, owing to the prevailing sickness caused by "the grippe," and partly on account of the small production of honey.

In the informal talk these facts were developed: That some of those present had very satisfactory yields, while others failed to have any surplus honey stored.

For instance, D. W. Nichols, of Godard, Pa., had secured a very good yield of excellent honey, while a friend of his, whose bees were in just as good condition, did not secure any surplus, a distance of four or five miles apart, making the difference between success and failure. Some of those present had secured honey which was bitter, so much so that it could not be used for domestic purposes. Those having it will use it to feed up colonies next Spring.

Quite a talk was had on hiving swarms. Some use a bushel basket. Mr. A. Webster uses a common market basket with a cover. Others use a regular hiving-box. To all of these, poles are attached, of different lengths, owing to the hight of the swarm to be taken.

Mr. A. Webster, of Painesville, O., exhibited a sample of propolis—cut in alcohol—which he considers the best all-purpose medicine ever discovered for the human family. He says he has found it a great blood purifier; has cured himself of rheumatism, and for cuts and bruises it has no equal. Mr. W. also exhibited a bee-escape which costs almost nothing but the time to make it, it being so simple, yet it answers the same purpose as others.

The fact was also developed that though sugar is cheap, honey has sold at high figures, which shows that people will use honey as a luxury. Honey sold at wholesale at from 15 to 18 cents per pound at stores, and the demand was not half supplied. Many other topics were considered in an informal way, and much information was gained in a very pleasant manner.

The evening session convened at 7 o'clock. The President, N. T. Phelps, not having arrived, the Secretary called the meeting to order. M. E. Mason, of Andover, O., was called to the chair, and the programme was taken up.

"How can we make this convention a success?" The question was discussed by volunteers, and all the speakers urged earnestness and zeal as the great thing to lead to success.

The address of welcome was delivered by Aaron Pickett, of Ashtabula, and was replete with happy thoughts. He said that the subject of apiculture has occupied the attention of the wisest men in ages past. Honey is the best food on earth, because it is the most nourishing, and at the same time it has great medicinal properties. Honey is not used half enough, especially by those suffering with pulmonary trouble. All the great men of ancient times had given much attention to the honey-bee. Pliny, Homer and Aristotle had much to say about the "busy little bee." Other great writers of ancient times show by their writings that among insects the bee occupied much of their attention.

The bee has always borne a good character. It will not steal, but it will always defend itself. It is always industrious when there is anything for it to do. We should all give some attention to the subject. Attention to details will beget a love for the pursuit. During the last sixty years the advancement in apiculture has been equal to that of other branches of human industry. For two thousand years the same rude implement was used for a plow. For the same length of time but a little improvement was made in the knowledge of the busy bee, but in the last fifty years great advancement has been made in the improvement of the implements used in the apiary. The enemies of the bee are numerous, so that success is attained by the use of great vigilance.

QUESTION-BOX.

"What is the cause of bitter honey?"

Mr. Coon's bees had stored a lot of this kind of honey, and it was so bitter that it could not be sold in the market. He thought it might be the production of aphides or plant-lice which feed on the leaves of certain trees like the soft maple. It was suggested that if it was not produced so early—July—it might be gathered from rag-weed. Others thought that it might be gathered from evergreens, as bees sometimes work on them.

M. E. Mason did not believe that bees ever gathered honey from evergreens, though they do gather propolis from them in large quantities, at times.

"Does the bee *make* the honey?"

Mr. Mason does not believe that bees change anything that they gather and put into the comb. He had, at one time, to test it, fed sour maple syrup to bees, and it remained the same sour stuff.

C. D. Freeman said every plant has its peculiar flavor, and honey gathered from the blossom of each plant can be detected from its flavor. A member stated that he had honey that had a distinct smart-weed taste.

Foundation in the Brood-Nest and the Sections.

"Is it more profitable to use whole sheets of foundation or only parts, in either brood-nest or sections?"

Mr. B. W. Peck was called on to answer the question. He would use full sheets in both the brood-nest and sections. Had tried both methods. In using full sheets in the sections, he invariably gets sections filled out better all around the edge, which is not the case where only starters are used; and where full sheets are used, there is no trouble with the queen going up into the sections. The cause of this is, that where only a strip of foundation is used, the bees will almost always build drone-comb, and the queen goes up and lays, and the result is drones instead of honey. He also finds, since using whole sheets of foundation, that he does not have so many unfinished sections, for bees work better where full sheets are used. He would use a section or two with comb in, to induce bees to enter the sections.

It was also advocated that it was cheaper to use foundation because it takes honey to make wax.

"Is wax a voluntary secretion?" Mr. Webster said that when bees have plenty of honey, they will secrete wax without effort. He had filled a whole hive with comb, and in three days the bees all swarmed out.

C. H. Coon had observed wax scales on the bottom-board of the hive, which bees had no use for. He uses a few empty combs in the center when hiving a swarm, which gives the bees room to store the honey they bring with them, from the parent hive. In the balance of the frames he uses only starters of foundation, which gives the bees a chance to use the wax that they voluntarily secrete. When using all foundation in the brood-nest it will break down unless wired to it. By wiring it, he has been able to use a light weight foundation, so the difference paid for the trouble in wiring.

Mr. Mason finds where full sheets of foundation are used, the wax secretions are much less. Bees secrete very little wax when gathering honey.

Mr. Freeman sometimes uses full sheets, and sometimes only a third of a sheet. He could never see any difference. A great deal depends upon the season.

Cardinal Points in Bee-Keeping.

Mr. J. B. Hains, of Bedford, O., was invited to read an essay on "The cardinal points in bee-keeping," but was unable to attend on account of sickness. He sent the essay, which was read by the Secretary, of which the following is a summary:

The "cardinal points" are many. Webster speaks of four cardinal points, while he gives seventy cardinals as composing the sacred college of the church of Rome. Now I am not sure that there are not as many as seventy cardinal points in bee-keeping. I will consider what I think are the four principal or cardinal points in bee-keeping.

First, adaptability of the bee-keeper to his business; second, suitable location; third, bees—the best strain obtainable in numbers suited to the location; fourth, hives which secure comfort to the bees, and convenience and economy to the bee-keeper. To these may be added the four cardinal virtues —temperance, fortitude, prudence and justice.

Temperance gives one the mastery over self, and qualifies one to master his profession. Fortitude is that steady purpose of the mind that enables him to meet the objectionable *points* of the business—the bee-stings, disappointments, losses by wintering, etc.

Prudence influences him to attend to the wants of the bees and apiary, cut down expenses to the lowest point consistent with successful management, at the same time investing such sums as promise remunerative results; such as securing serviceable hives, tin-roofed and painted, foundation, section-cases, extracting tools, etc. Everything provided and ready for use before they are needed.

Justice may be said to be the golden mean between parsimoniousness and extravagance, either of which, controlling the bee-keeper, ends only in loss and disappointment. By it he is induced to be just to his bees, supplying their every want at the right time, and to see to it that they are not impoverished. Should they lack stores for Winter, supply them with a generous amount of food early enough so they may ripen and seal it for Winter, regarding it not as a gift, but as the interest on the debt he owes them. Yes, lend them a few pounds of sugar syrup, and you will be paid back tenfold, besides having the satisfaction of having performed a humane act.

The really just man cannot fail to secure his reward if his actions are directed by prudence, fortitude, and temperance.

Besides the points spoken of—the points are many—the details must all be attended to if success follows. The largest cash return is only realized by placing on the market the nicest honey in the best possible shape.

QUESTION-BOX.

"What can be done to cure the nameless bee-disease?"

Mr. Nichols had colonies affected with the disease, but had never found a remedy. Colonies always dwindled away until the hive was empty.

Mr. Mason had given healthy bees to affected colonies, but without any good results. He had, when moving a part of his apiary to a new field, taken affected colonies along, thinking different food might prove a remedy, but all died.

Mr. B. W. Peck had cured the disease by introducing a new queen, from which it might be inferred that the queen was the cause of the trouble.

"How can you unite bees successfully?"

Mr. Webster did it by placing hives over each other, first smoking the bees well, and have a small hole between the 2 colonies.

Mr. Mason said he united by shaking the bees from both swarms in front of the hive where the united bees are to stay, putting the best combs in this hive.

The subject of self-hivers came up, but so far they have not proved very satisfactory. Hiving swarms was also talked up, but no new points were advanced beyond what has already been mentioned.

Bee Forage.

This was discussed by Mr. B. W. Peck, of Richmond Centre, O. He said:

The subject is one of great importance, as upon it the success or failure of the honey-producing industry depends. Whether or not it will pay for the average bee-keeper to plant for honey alone, and what plants to plant, are what ought to be brought out in a convention of this kind. It is estimated that there are 300,000 bee-keepers in North America. The annual production of honey is about 100,000,000 pounds, valued at about $15,000,000.

Whether the amount of honey produced annually is increased or diminished depends largely upon the amount of forage. Among the principal honey-producing plants are the following: Soft maple, elm, pussy-willow (which blossoms in April, and yields both honey and pollen); hard-maple (comes into bloom the first of May, and yields honey and pollen); the middle of May, dandelions and fruit blossoms do much toward building up the apiary, especially if the weather is favorable; next follow raspberry, blackberry, and white and Alsike clover, the two latter yield the most of the early surplus; July follows with basswood and whitewood, or tulip—the former being the best honey-yielding plant or tree we have.

For Fall honey we have in August and September the corn-tassel, buckwheat, heart's-ease, smartweed, and last but not least, the national flower—golden-rod—which yields a very fine article of Fall honey.

The basswood, or linden, is fast disappearing on account of the use of the tree for lumber and other purposes. Bee-keepers are even using large quantities for sections, which is wrong, for poplar makes a whiter section, though it cannot be used in the manufacture of the one-piece section.

If the wanton destruction of our honey-yielding timber goes on, we will either have to plant for honey, or give up the bee-business. I do not believe that it will pay to plant anything that cannot be utilized for other purposes than honey.

We can and should plant the basswood for shade, and induce our neighbors to do the same, instead of the maple; the former is a beautiful shade tree, equal if not superior to the latter.

The blossom of the linden is very beautiful, and, when loaded, the aroma is most delightful, especially when frequented by what appears to be whole colonies of bees. But with all our planting for honey, we must remember that it takes a large area of honey-producing plants to furnish honey in paying quantities.

The past season white clover blossomed profusely, yet for some reason failed to yield any honey worth mentioning. Yet the weather seemed to be just such as we desire for the secretion of honey. Alfalfa yields honey bountifully in Colorado, California and other Western States, yet in Ohio it seems to be of no account for honey. In Ohio and Pennsylvania, and some other States, the golden-rod yields large quantities of honey.

I will close by urging all bee-keepers to take new courage, study more closely the nature and value of the nectar-bearing plants of their locality, and cultivate such as are of the most value.

In the discussion following the essay, it was asked whether sweet clover was of any value as a honey-producing plant. C. H. Coon had bought a peck of sweet clover seed and gave it to neighbors and to teamsters to scatter along the highway as they drove along, yet from the whole peck of seed he had seen but two plants, and they were grown in pots. He thought the seed, perhaps, might be poor, and he sent some to the Agricultural Experiment Station, and 75 to 80 per cent. of the seed germinated; so he made up his mind that the soil, which was mostly clay, was at fault. He had seen sweet clover grow luxuriantly on sandy, and also on mucky soil, but as it is a poor plant for pasture or hay, he does not think it would pay to plant for honey alone.

The fact was developed during the discussion that in some localities the golden-rod failed to blossom the past season, which M. E. Mason attributed to the dry weather just before the bloom, which blasted the flower in the bud.

In respect to planting the basswood for honey, L. D. Freeman said it would take a long time after planting before it would blossom enough to yield honey in quantities to pay for the outlay.

D. H. Throop had basswood yield honey in a very few years after planting, besides he had a most beautiful shade tree.

C. H. Coon had basswood bloom the fifth year after planting. He felt certain that we would have a good season next Summer, because we have had a hard Winter. The past three seasons being failures, might be caused by the three preceding mild Winters.

Mr. Throop, who had for thirty years or more been keeping bees, said it was nothing new to have seasons of failure. Such things are to be expected.

All the topics were earnestly and well discussed, and all present agreed that the time was profitably spent.

The next meeting of the Association was fixed at Saegertown, at the Eureka Hotel, or, if thought best by the Executive Committee, a change could be made to either Meadville or Union City.

The following officers were elected for the ensuing year:

President, M. E. Mason, Andover, O.; Vice-President, B. W. Peck, Richmond Centre, O.; Treasurer, L. D. Freeman, Venangoboro, Pa.; Secretary, George Spitler, Mosiertown, Pa.

Executive Committee—L. D. Freeman, Geo. Spitler, and John McGonnell, of Mill Village, Pa.

The time for holding the next meeting of the Association will be fixed by the Executive Committee, and announced in due season. GEO. SPITLER, *Sec.*

Bee-Keeping in Utah.

J. L. BUNTING.

The honey interest is on the increase here. There are about 275 hives of bees in Kane county, which I can say from experience is the most profitable industry we have. We know nothing of disease, such as foul-brood; the worst feature is *neglect* on the part of those who have but a few colonies, and take no care of them.

There is a local demand for all our honey, which is of the very best quality, being produced from the Rocky Mountain bee-plant, which grows here on all waste lands, also the alfalfa fields yield much when we have water from Kanab creek, and I am happy to say that our future prospects are good; our new dam, which has cost $18,000, is near completion.

We have had no water for irrigation the past two years, and in consequence the honey crop has been about one-half the amount it would have been with irrigation. The bees suffer for the want of water; we have had to treat them as we do our chickens, water them in pans with a coarse cloth laid over.

My bees average about 75 pounds of extracted-honey to the hive, when we have water, and about 40 pounds for the last two years. What we need most at present is to improve our bees by the introduction of Italian queens, foundation, sections for comb-honey, and suitable cans for placing our extracted-honey on the market.—*Intermountain.*

Cortland Union Bee-Keepers' Convention.

C. W. WILKINS.

The February meeting of the Cortland Union Bee-Keepers' Association was held in the W. C. T. U. room at Cortland, N. Y., on the 23rd inst., there being a small attendance, owing to a poor condition of the roads.

The meeting was called to order by President Kennedy. The reports of the Secretary and Treasurer were read and approved. An opportunity was then given for members to pay their annual dues, after which the following officers were elected for the ensuing year:

President, J. L. Kinney, of Cortland; Secretary, C. W. Wilkins, of Homer; and Treasurer, T. T. Barrows, of Groton. They were immediately installed in their respective offices, and the regular proceedings begun.

Wintering Bees Under Snow.

President Kinney opened the meeting for questions and discussions, and asked this question to start with: "How long may hives containing bees be covered with snow, consequently preventing the bees from any opportunity for flight, and the bees still winter safely?"

The general tenor of the remarks was in favor of having the snow around the entrances "shoveled out," and kept clean by hauling out the dead bees by means of a crooked wire. One exception was ex-President Kennedy, who had successfully wintered bees with the hives covered completely with snow.

The reasons given for desiring the entrances accessible to the open air, when snowed up, were, that if the bees were kept too closely confined by snow, the hives would become damp, the combs moldy, and the bees would commence breeding too early. This would result in lack of stores, or "Spring dwindling," when the snow went down, and they become exposed to the prevailing temperature.

The above discussion brought about the advocating (by those who had successfully experimented with them) frames raised ¾ of an inch above the bottom of the hive for wintering, instead of the usual ⅜ inch space used in this locality the year around.

The points in favor of the change were, that the accumulation of dead bees could be more readily removed, and if from neglect or other cause they were not removed, the frames would not be as apt to become clogged by cakes of moldy, decaying dead bees and filth.

Mr. Miles Martin, an extensive honey-producer, advocated the use of a hive with which he has experimented in his apiaries to his entire satisfaction. It has a ⅜-inch space at the back, and a ¾-inch space at the front, between the bottom of the frames and the bottom of the hive.

Extracting the Early Honey.

"Would it not be best to extract the early yellow honey which sometimes accumulates in the brood-chamber, rather than allow it to remain for Winter stores?" was the next question.

The spirit which prompted this question seemed to be the idea among many of the members, that this quality of honey contains considerable pollen; and that when used as food for bees in confinement, it would have a disastrous effect by causing diarrhea among the bees.

Many thought this yellow honey should be removed, even if it had to be replaced by feeding. It was supposed to come from the sumac in July, but as to the early yellow honey, some difference of opinion prevailed. We should be pleased to have correspondents of the AMERICAN BEE JOURNAL enlighten us on this matter.

Stimulative Feeding in the Spring.

Mr. J. H. Manchester asked as to the practicability of feeding in the Spring, for the purpose of stimulating brood-rearing, provided the colonies had plenty of stores.

The general verdict was against the practice, but as soon as the size of the swarm, and the warmth of the weather would permit, take a frame of honey, break the cappings, and place it in the middle of the brood-nest.

It was also advocated that contracting the entrance and brood-chamber to accommodate the capacity of the swarm, was also a stimulant to the rearing of brood, as it economized heat, preserved the life of the stragglers endeavoring to look after outside combs, and, in case of a "cold snap," even chilled brood would be unknown. Therefore, the spirit of the colony was enhanced rather than depressed.

Spreading the Brood-Nest in Spring.

"The advisability of spreading the brood-nest during Spring," was the next subject suggested.

The experience of our best bee-keepers, in this section, shows that it is not a sanitary method. Sudden lowering of the temperature, which so frequently occurs here, especially in the Spring, is almost sure to chill some of the brood. Therefore, it was decided that the queen was the best judge as to how fast the brood-nest should be expanded for the bees to be enabled to protect it at all times.

Bee-Escapes and their Use.

The subject of bee-escapes was next discussed.

Mr. Martin stated that he used the "Porter bee-escape," and is very much pleased with its working. He said: "That tiresome job of getting bees out of cases at the close of the honey season especially, is made to be nothing but fun. You place the board containing the escape under the cases; leave it there—on the hive, remember—several days, or weeks if desired, then take off these cases, and you will find scarcely a bee left in them, as a rule, and the sections are seldom soiled at all."

Straight Brood-Combs Without Foundation.

"Is there any way we can get nice, straight combs in the brood-chamber without using foundation?" was next asked.

Many could get straight combs by merely using "starters," and were confident that they could get a better yield of *white* surplus by so doing; but they had more drone-comb to contend with.

Queen-Excluders.

The merits of the queen-excluder were also discussed. It was unanimously decided to be a splendid invention, especially to keep the queen from laying ing in the sections and extracting supers; but also to confine the drones to the more narrow limits of the brood-chamber, where there numbers could be more accurately estimated by the workers, and, consequently, as it was believed, tolerated and reared in less numbers.

Equalizing Brood in the Spring.

The following, and last general discussion, was upon a subject of universal importance among apiarists, viz: "Shall we equalize the brood in the Spring between the weak and strong colonies for the purpose of building all up equally strong for the honey flow?"

"No," was the general answer to this question, because it is drawing on our strongest and *best* colonies to promote the welfare of those which, only too often, are unworthy of our attention; and our time and labor are expended for naught but, it may be, to lengthen the days of an unprolific queen.

C. W. Wilkins had practiced, with good results, changing the hive of a swarm that had just issued, with that of a weak colony. The queens' wings being clipped, of course the one from the issuing swarm was easily secured, and the one from the weak colony could be easily found, as the number of bees was small. The queens were introduced to their respective colonies again by simply placing them on top of the brood-frames or cases, if on, underneath the burlap, still leaving them confined in their cages for perhaps 24 hours. If the queen from the weak colony was thought to be unprofitable to retain, she was destroyed, and a frame from some other hive containing two queen-cells, capped if possible, were placed in her stead, after her loss was appreciated by the colony.

This proves to be a very efficient and economical method of equalizing and re-queening at the same time. This programme is not followed, of course, later than June 20, in this locality, so that is about the time we wish to commence saving swarms, and we calculate that all our weak colonies, by that time, will have outgrown assistance, through natural growth and external help.

The convention adjourned to meet at President Kinney's some time in May, at the call of the Secretary, to examine his apiary and fixtures, and also to enjoy a social chat about bees and their management. C. W. Wilkins, *Sec.*

Rearing Queens—Mistaken Ideas.

J. W. TEFFT.

It was Socrates, I believe, who once remarked that all we know is nothing to what can be known. But if the wise old Grecian had lived in these modern days, he would have been forced to admit that at least some bee-keepers know a good deal more than others.

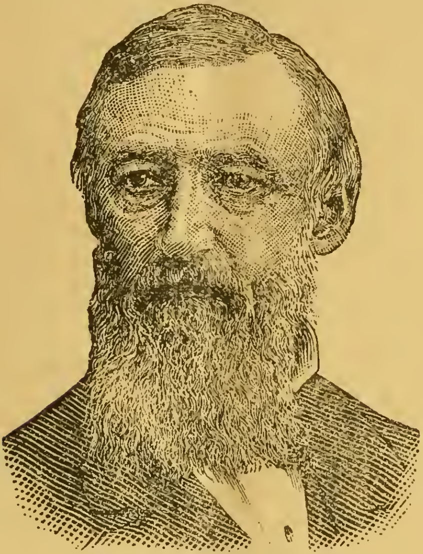
Now-a-days no bee-keeper knows his science or his art completely until he has learned what all specialists in bee-keeping have learned, besides what his own specialty may be able to teach him.

Apiarian knowledge must be gained by oursevelses—others may supply us with facts, but even the results, if they agree with the previous ones, must be the result of our own experience.

In queen-bee rearing, I have discovered this fact, viz.: A queen reared in a colony or a nucleus where there are no drones at the time of the formation of the queen-cell, is a worthless queen, compared with a queen reared where there are drones at the time of the formation of the queen-cell.

A queen reared where there are no drones, is short lived. Her progeny lack vigor, as well as vitality to stand the Winters. The honey-gathering qualities are poor, and she also fails to keep her colony up to the standard in working bees. It is evident to me that bees that have no drones have not the necessary power to feed the queen while in the embryo state.

Just what influence the drones have over the worker bees while making and feeding queen-cells before they are sealed up, I do not know. Perhaps the queen-breeder who is a specialist can tell.



MR. J. W. TEFFT.

If the first batch of queen-cells are all cut out and thrown away, and new eggs are given, they will rear a superior queen, like unto a diamond in value. I want no queen honey-bee, unless she comes into the world in the natural way, but such queens cost something. But we appreciate what costs something.

One of the greatest mistakes made by a majority of bee-keepers at the very outset, is the manner of buying queens and supplies. There is an everlasting hunt for cheap queens and hives. How often we see bee-keepers who would not plant poor seeds at any price, search for cheap queens and hives, and, in the end, some far-away breeder or dealer fills his order with queens or bee-hives that a first-class bee-keeper would not use even if he could get a bonus for so doing.

Buffalo, N. Y.

Judging Exhibits at Fairs.

S. F. & I. TREGO.

We have read Mr. Geo. F. Robbin's rules on judging exhibits of bees at Fairs, and consider them very unfair, as it practically bars the golden Italians.

We wonder where Mr. R. found his "prevailing verdict"—surely not in the advertising columns of the bee-papers, or in the number of orders such as advertisers are receiving. If their very yellow bees are worthless, how is it that 5 per cent. of our customers of 1891 had orders booked for 1892 before March 1, 1892. And among those customers are such men as E. F. Quigley, and G. W. Rouse & Co.! How is it that such men as Messrs. Hutchinson, Hilton, Doolittle and many others less prominent will tolerate such bees?

Possibly there are very yellow bees that are worthless, but they are not bred by the leading breeders of golden Italians.

Why is it that every breeder of yellow Italians is preparing for a very busy season, if these bees are not good?

We are aware that some of the dark Italians are great bees "for business," for during the five years that we had them, we frequently came in painful contact with their "business end," and were made fully aware of its presence.

We would suggest this as a scale of marking:

Size of bees	30
Color and markings	20
Quietness	10
Brood and queen, each 10	20
Quantity of bees	10
Style of hive	5
Style of comb	5

The above may not be perfect, but it is nearer fair than Mr. R.'s, and bars none that are Italian bees.

Swedona, Ills.

◆

☞ J. E. Snider, an apiarist of Utah, says their principal pasturage is sweet clover, and consequently their main honey crop comes in the Fall. The quality of the honey is excellent, and the quantity is almost unlimited—thousands of acres of sweet clover go to waste every year because there are not enough bees to gather the nectar.

◆

☞ "Oh, come to the point," said the bee as he lit on the orator's neck.

CONVENTION DIRECTORY.

Time and place of meeting.

1892.
Apr. 6, 7.—Texas State, at Greenville, Tex.
A. H. Jones, Sec., Golden, Tex.

Apr. 7.—Utah, at Salt Lake City, Utah.
John C. Swaner, Sec., Salt Lake City, Utah.

Apr. 7, 8.—Missouri State, at Warrensburg, Mo.
W. S. Dorn Blaser, Sec., Higginsville, Mo.

Apr. 21.—Colorado State, at Golden, Colo.
H. Knight, Sec., Littleton, Colo.

May 5.—Susquehanna Co., at Brooklyn, Pa.
H. M. Seeley, Sec., Harford, Pa.

May 17.—Northern Illinois, at Harlem, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

May 28.—Haldimand, at Nelles' Corners, Ont.
E. C. Campbell, Sec. Cayuga, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Eugene Secor..Forest City, Iowa.
SECRETARY—W. Z. Hutchinson....Flint, Mich.

National Bee-Keepers' Union.

PRESIDENT—James Heddon ..Dowagiac, Mich.
SEC'Y AND MANAGER—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Bees Flying in Massachusetts.

Bees have been flying four days this week, and are working on wheat flour. It is 52° in the shade to-day, but I expect that the blizzard now in Chicago will be here on Friday. If "Old Probabilities" tells the truth, the West is having a hard time just at this moment.

HENRY ALLEY.
Wenham, Mass., March 10, 1892.

[Yes, the blizzard was a tough one, and the East got it to its fullest extent, as well as the West.—ED.]

Self-Hiving Arrangement.

I send pencil drawings of a self-hiver that I propose to try the coming season. It is made of two boards placed horizontally, with a 2¾-inch space between them, and at each end it is 12 inches wide, to fit against the entrance of the hive containing the old colony, and that of the empty one, the two hives facing each other. After 2 inches from each end toward the center of the hiver it tapers in, a distance of 6 inches, to 1¾ inches wide in the center of the hiver. In this narrow middle part is a cone, made of wood, pointing toward the empty hive through which the bees pass. Excepting along the sides of the narrow part of the hiver at the center (which are of wire-cloth) the sides are made of zinc strips 2¾ inches high; and the 2 inches from each of the four corners of the hiver is of wood. I see no reason why it will not work to perfection when the swarm is issuing. The shape of the perforated zinc that forms the front of the hiver will naturally cause them to crawl towards the cone from each side, thus causing the queen to pass through the cone with some of the bees into the empty hive, the swarm returning will find the queen in the empty hive with some of the young bees. The advantages of this hiver would be cheapness and adaptability to any style of hive in use. It could be attached to the dovetailed, the old portico kind, or almost any chaff hive where shade-boards are used. The board can rest on each hive connected by the hiver. I give this suggestion to the bee-keepers, hoping that they will find it to work all right.

MARION MILLER.
Le Claire, Iowa.

Missouri Bee-Keepers.

Hon. Levi Chubbuck, Secretary of the State Board of Agriculture, has given the bee-keepers of Missouri quite a boost, by publishing in the Agricultural Report for 1890, the report in full of the Marshall and Mexico meetings of the Missouri State Bee-Keepers' Association, and some other articles on the bee-industry, and has also issued this report in pamphlet form. Mr. Chubbuck merits, and certainly will have, the thanks of bee-keepers everywhere, for his kindly notice of our beloved industry.

J. W. ROUSE.
Mexico, Mo.

Bees all Alive and Doing Well.

My 30 colonies of bees have done much better this Winter than I have. Myself, wife and mother-in-law all had "the grippe" in the latter part of January. It removed mother in a few days, leaving my wife and me confined to the house for five weeks, and still not vigorous, while my bees are all alive, and apparently doing well, although many of the old-fashioned, "know it all" beekeepers have lost large numbers of their bees. I hope for and expect a good season this year. There appears to be plenty of clover coming on, and our basswood having failed two seasons, we hope for "a good time coming."

T. C. KELLEY.

Slippery Rock, Pa., March 14, 1892.

Planting Basswood Trees.

In reply to J. E. Cady (page 358), what kind of basswood, or linden, trees to plant in Minnesota, I would say that I have no knowledge of any kinds except those native to our State. In an experience of 15 years, they have not failed to secrete nectar in this locality. They are in bloom from 14 to 21 days. The honey from them cannot be surpassed for quality and delicious aromatic flavor, that suits the taste of every lover of honey. The principal crop is from linden.

N. P. ASPINWALL.

Harrison, Minn., March 13, 1892.

Twelve-Swarm Colony—La Grippe.

Some time ago I wrote concerning the number of times a 12-frame colony of bees had swarmed—12 times in 11 days. I was expecting that some one would call me to account on the bee-question (see BEE JOURNAL for March 5, 1891). It is clear enough when I explain it. They commenced swarming about June 4 or 6, and we hived them all right, but during the afternoon they went back to the parent hive; they kept that up, and swarmed twice some days. They cast good swarms, and went back 8 times. Out of the 12 swarms we got 4 good ones, that have all filled their hives and stored some in the sections. The old colony will fill 2 or 2½ cases of 36 sections; so this will explain the 12-swarm question, and answer Mr. A. C. Babb's question, whether they were pint or gallon swarms. They were neither pint nor gallon, but about 3-quart swarms. I had 17 colonies, Spring count, and they increased by swarming to 53 colonies, but I lost 3 10-frame colonies by my neighbor's bees robbing them.

The only thing that I can compare the *La Grippe* to, is the great electric devil-fish, or octopus, that sails through the air, and reaches out its everlasting claws and lays a withering grasp upon its victims. Its touch fills the whole system of the person with a shower of poisonous electricity, until it seems as though it was breaking every bone in the body, and the head is filled with a pressure of 160 pounds to the square inch. By this time the person is down on the broad of the back in bed, for a two or three weeks' siege of it. The monster has had its nippers on the writer at one time, hence he can speak from experience. I use tincture of camphor 3 drops once an hour on sugar, ½ drop of aconite once in 3 hours in water, belladona once in 6 hours, and do not eat but little, and that light food. Keep warm.

MARK D. JUDKINS.

Osakis, Minn.

Poor Seasons—Frozen Bees.

The past three years here have been poor honey seasons. Many colonies of bees gathered barely enough honey to live on. All my bees, except one colony, are wintering well. This colony, during a few warm days became uneasy, and I put it in the open air, covering the hive with some carpet. The weather turned very cold for a few days, and when I examined them, they were dead, to all appearances; they were frozen so hard that they would break in two in trying to bend them. I thawed them out, and fed them sugar syrup, as they were nearly starved. About one-third of them are living to-day, and doing well.

W. S. HALE.

Buckley, Ills., March 14, 1892.

Wavelets of News.

Order Supplies Early.

It is a good time now to plan the next season's work, and order what supplies will likely be wanted. If you will get everything ready now, you will be surprised next Summer how easy it will be to care for a few colonies of bees.—*Western Plowman.*

Water for Bees.

On warm days when bees come out at this season do not allow them to venture far away in search of water. The weather is liable to suddenly turn cold, and the bees perish. Keep fresh water near the hives.—*Exchange.*

Leaking Covers to Hives.

Above all things, keep your colonies dry. Thousands of colonies perish every year by leaking covers. Whenever moisture from without is added to the generated moisture or evaporation from the bees within, a damp and chilly atmosphere is the result, which generally proves fatal in frosty weather to the bees.

Tin roofs, with ventilated holes in the gable ends, are a sure preventive. A cushion made of coffee sacks, the size of the top of the hive, and filled with wheat chaff, is an excellent absorbent of moisture.

Such hives as will not admit a cushion within, can be aided by having a ventilating aperture on top, 2 inches square, covered with wire-cloth, and a cushion without. Such a cushion must be made of " duck," impermeable to rain ; or oilcloth, so cut as to go over the outside of the hive, and with a drawing string of twine run through the edge of the cloth, so that it can be fastened tight to the hive. Chaff is put into it, and then drawn over the hive and tied.—*Farm Journal.*

Spring Protection.

We consider some Spring protection very desirable, especially when the bees are set out so early. We have often noticed on cold mornings, when the hives were covered with frost, that a patch in the center of the cover would begin to melt first, showing that considerable heat was escaping from the cluster of bees through the covers.

Taking a hint from this, we have concluded to put an empty super on each hive, shortly after setting out, and fill them with dry leaves or chaff. As we have a great many combs partly filled with honey, we shall remove the escape covers, and place another hive on top, containing only four combs in the center, with a division-board on each side. This will leave a space of over three inches on each side to be filled with packing.

A super will also be put on top to be filled with packing. This will make a warm nest for the bees on the four combs, and they will not be slow to occupy them. There are very few colonies that will be able to occupy more than four combs early in the season, and in cold weather the lower hive will be practically deserted. As the weather becomes warmer, they can extend the brood-nest into the lower hive.

If there is honey enough, they can be left in this shape until the time comes to put on the surplus cases, when the four combs, well filled with brood, should be put in the center of the lower hive, and the colony should then run up as a single-story hive for comb honey.

If any feeding has to be done, it should be given at the entrance, during warm nights.—C. H. DIBBERN, in the *Western Plowman.*

How to Destroy Ants.

Those who are annoyed with ants about their hives and honey, should remember that they may be gotten rid of by the free use of salt. In the Spring of the year, especially, ants will often be found in immense numbers above the brood-chambers of the hives, between and over the honey sections. We are not conscious of ever having seen a colony of bees that we thought were harmed by the ants, but certainly no one wants them about when it can be prevented.

If the bees are of any strength, they will keep them away from the honey ; it is the heat coming from the colony of bees that the ants are after, as this is a great help in hatching out their eggs. Although we have never known the idea to be advanced, we are inclined to the belief that the main reason why ants dislike salt, is because it is a preservative, and would prevent the hatching of their eggs.

Whether this theory is correct or not, it is a fact that salt plentifully used in a hive where they have taken up their residence, will cause them to disappear. Crates of honey may be piled on the floor in a convenient place, and be in no danger from these pests, if salt is first sprinkled freely on the floor.—*Indiana Farmer.*

Quietude in Winter.

It is an undisputed fact that quietude is essential during the Winter season. A changeable temperature in the hives causes restlessness, consumption of honey, old age and death to many of the bees. An even temperature, somewhat below the freezing point, is what is wanted to cause the bees to relapse into that semi-torpid condition of successful wintering. A bee-house comes the nearest, excepting a cellar, to producing this state, anp is therefore to be preferred.—H. KNIGHT, in *Farmers' Review.*

AMERICAN
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OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

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ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

☞ Send us *one new* subscription, with $1.00, and we will present you with a nice Pocket Dictionary.

☞ The date on the wrapper-label of this paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to pay for another year.

☞ Systematic work in the Apiary will pay. Use the Apiary Register. It costs:

For	50 colonies (120 pages)	$1 00
"	100 colonies (220 pages)	1 25
"	200 colonies (420 pages)	1 50

☞ As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.

YOU NEED an Apiary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for $1.25; or for 200 colonies for $1.50. *Order one now.*

Supply Dealers desiring to sell our book, "Bees and Honey," should write for terms.

We Club the American Bee Journa and the Illustrated Home Journal, one year for $1.35. Both of these and Gleanings in Bee Culture, for one year for $2.15.

If You Have any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time.

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

When talking about Bees to your friend or neighbor, you will oblige us by commending the BEE JOURNAL to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the Convention Hand-Book by mail, postpaid. It sells at 50 cents.

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We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club.*
The American Bee Journal	$1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	2 00	1 75
The Apiculturist	1 75	1 65
Canadian Bee Journal	2 00	1 75
American Bee-Keeper	1 50	1 40
The 7 above-named papers	5 75	5 00
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Cook's Manual (1887 edition)	2 25	2 00
Quinby's New Bee-Keeping	2 50	2 25
Doolittle on Queen-Rearing	2 00	1 75
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 50	1 40
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Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

Winter Problem in bee-keeping; by G. R. Pierce, of Iowa, who has had 25 years' experience in bee-keeping, and for the past 5 years has devoted all his time and energies to the pursuit. Price, 50 cents. For sale at this office.

A Nice Pocket Dictionary will be given as a premium for only **one new** subscriber to this JOURNAL, with $1.00. It is a splendid little Dictionary—just right for the pocket. Price, **25 cents.**

The latest edition of "Bees and Honey" is received. It is a gem in literature, and I consider it the finest work on the subject extant. The portraits are alone worth the money. The magnificent engravings are the wonder of the old-time bee-keeper.—S. J. Youngman, Lakeview, Mich.

If You Want to know how Queens are fertilized in upper stories, while an old Queen is laying below—how to *safely introduce* Queens at any time when bees can fly—all about different bees, shipping Queens, forming nuclei, multiplying or uniting colonies, etc.—send us $1.00 for "Doolittle's Queen-Rearing;" 170 pages; bound in cloth, and as interesting as a story.

The Amateur Bee-Keeper, by J. W. Rouse; 52 pages. Price, 25c. For sale at this office.

☞ **Subscribers who do not receive their papers promptly, should notify us at once.**

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

FOR SALE—100 Colonies of Bees and 50 empty Hives, all Langstroth. Address,
FRANK PINKERTON, Marshalltown, Iowa.
12A2t

WANTED—A situation in an apiary or hive manufactory. I am willing to make myself generally useful. J. W. TEFFT.
5Atf 318 Swan St., Buffalo, N. Y.

WANTED—To exchange Bees, Honey and Supplies for Cash or Tinners' Tools.
J. A. BUCKLEW, Warsaw, Coshocton Co., O.
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WANTED—To sell 25 Colonies Italian Bees in 2-story 10-frame Improved L. Hives with T supers. combs built from foundation. Queens of Doolittle's and Alley's stock.
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FOR SALE—The Apiary of Solomon Vrooman, deceased, consisting of one hundred and seven Colonies, and all necessary appliances. For many years the apiary of J. H. Martin, Hartford, Washington Co., N. Y. For particulars, address,
F. S. ELDREDGE,
12A3t 11 N. Church St., No. Adams, Mass.

FOR SALE—20 Acres land in Berkeley Co., W. Va., 5 miles west of city of Martinsburg—the county seat of Berkeley. The following varieties of fruit upon it in full bearing are—55 apple-trees, 130 grape-vines, 20 cherry-trees. Buildings in good and substantial condition. Dwelling-house, smoke-house, corn-crib, stable and spring-house, with a never-falling spring of pure water. Good location for Bees and Queen-Rearing. Price, $500.
Address, WILL THATCHER,
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THOMAS G. NEWMAN, EDITOR.
GEO. W. YORK, ASSISTANT EDITOR.

Vol. XXIX. Mar. 31, 1892. No. 14.

Editorial Buzzings.

The Editor's Health has been so much impaired by three annual attacks of *La Grippe*, that if some radical improvement is not made very soon, a collapse is imminent. His physician prescribes "a complete rest and change of air." Accordingly, he will leave the city next week for a month's rest. The drudgery of desk-work has brought on neuralgia and brain troubles. A vigorous constitution, and strong will-power have contributed in no small degree to his holding out so long against the insiduous working of that dire disease and its results.

Meanwhile, the editorial work on the BEE JOURNAL will devolve upon the Editor's assistant, Mr. George W. York, who has been connected with the office for several years, and is thoroughly conversant with the duties of that department.

Bounty on Honey is a subject that has been pretty well discussed in *Gleanings* and some other bee-periodicals. Mr. Baldridge also had an article on the subject on page 220 of the AMERICAN BEE JOURNAL. The idea was started at the Northwestern Convention last November, but it was so absurd that we then paid no attention to it in the AMERICAN BEE JOURNAL.

Instead of asking Uncle Sam to pay a bounty of 2 cents per pound on honey, we should join others in demanding that the bounty on sugar be repealed. It will surely be done in the near future. The figures are enormous, as will be seen by the following from the daily press:

> The U. S. Treasury issued a statement to March 1, showing that 2,523 claims for bounty have been received, amounting to about $7,000,000. Of these, 925 claims have been paid, involving about $3,000,000—$2,700,000 of which was on cane sugar alone.

Seven millions of dollars taken from the pockets of the poor and given to the rich! There is neither right nor justice in it! It is oppressive and burdensome, because at a time when there is a deficit in the public revenues, it will take ten millions annually from the already-burdened tax-payers, and give it to rich sugar-producers. It is also contrary to the Constitution, and violates every principle of our Government. Those who enacted it knew this, and therefore made a permanent appropriation for the payment of this sugar bounty for 14 years. But few of such instances are on record, and let us hope that there will be no more of them.

Honey-producers would spurn the idea of such an enactment—of such a questionable transaction! They want no bounty—only a fair field, a good crop, and the stoppage of adulteration. Then there would be a good market for all that can be produced, and at fair prices.

We fully agree with the decision of the Supreme Court of the United States, given by Justice Miller, that "to lay with one hand the power of the Government on the property of the citizen, and with the other to bestow it upon favored individuals, to aid private enterprise, and to build up private fortunes, is none the less robbery because it is done under the forms of law, and is called taxation."

It is altogether wrong, and as bee-keepers we only desire what is right.

The following, from Volney White, of Findley's Lake, N. Y., published on page 82 of *Gleanings*, states the matter very clearly, and we endorse it most fully:

> Again, I ask, by what principle of justice can the government put its strong hand into *my* pocket and take my money and *give* to somebody else because he is engaged in another kind of business?
>
> I make some butter, as well as produce some honey; and as prices have been for a number of years, I have not netted 2 per cent. on the capital invested, with labor thrown in; please tell me why I should not have a bounty of 5 cents per pound on my butter; and then the men who produce pork, beef, wheat, oats, potatoes, and, in fact, every product of labor, should have a bounty; for the producers all say, and truly, that they cannot make reasonable profits on their business.
>
> A man who desires the government to take other people's money and *give* to *him*, for no equivalent, is either very selfish, or else he has not looked the matter over carefully; for it indisputably would be a violation of every principle of justice.
>
> Let us use our efforts to get stringent laws passed in all of the States against the adulteration of honey, and then get, if we can, executive officers elected who will not neglect their enforcement; and that is the best we can do.

◆

Speaking of seed catalogues lately sent all over the country, Mrs. L. Harrison wrote thus to the *Prairie Farmer*:

> When looking over these gems of art which come to us so freely, "without money and without price," arrayed in all the colors of the rainbow, let us not be unmindful of our little pets. If anything grown would pay us for honey alone, it would be the raspberry; its hanging blossoms yield nectar following rain. Order some mignonette and sow a bed, if for nothing more than to see the bees enjoy it, and carry its fragrance into their hives.

New Honey-Plant for Bees.—Bulletin No. 95, issued by Director E. W. Hilgard, of the University of California, mentions a waste-land forage plant which is a good honey-plant for bees, and offers seed for free distribution provided a small amount is sent him, sufficient to cover postage and packing. The plant (*Sida elliottii*) is thus described by an exchange:

> It is a green shrub or little bush which grows spontaneously to a height of 18 inches to 2 feet. Cattle and hogs are very fond of it; horses and mules as yet do not seem to like it.
>
> The plant has a long tap-root, taking possession of waste places and wild lands. It seems to prefer hard clay or rocky land. Scatter the seed on the hills, and in a few years it will cover the whole surface. In the meantime, pasturing does not hurt it. The seeds germinate readily.
>
> It is a member of a family which are all innocuous. Mucilaginous and nutritive, it requires no irrigation whatever, and while young is quite leafy and succulent, and seeds freely. Sowing the seed is not advised except on places designed for permanent pasturage, and not on meadows intended for mowing.

◆

Weak Colonies.—The *National Stockman* offers this very timely advice:

> Look after the bees, and see if each colony has plenty of stores. They may have honey, and possibly live through, but that is not the main point; if they have not plenty, they will not be rearing young bees as they should, and when Spring opens, you will have a weak colony or dead bees. A colony that is weak when fruit bloom comes, will require a greater part of that season to build itself up, and cannot store much surplus honey. To help the weak colonies, feed them regularly from now until bloom comes. Do not feed much at a time; about a quarter of a pound of syrup a day is sufficient if fed regularly. I have tried this, and know that it pays.

◆

Another new bee-escape has been placed in our Museum. It is the one illustrated and described on page 451, and is a double-acting bee-escape, and hence it is called the "Lightning."

Paddock's Pure-Food Bill is before Congress, and as there is some inquiry as to its provisions, we will give the following:

A food or drink shall be deemed to be adulterated—

1. If any substance has been mixed and packed with it so as to reduce or lower or injuriously affect its qualities or strength; so that such product when offered for sale shall be calculated and shall tend to deceive the purchaser.
2. If an inferior substance has been substituted wholly or in part for the article, so that the product when sold shall tend to deceive the purchaser.
3. If any valuable constituent of the article has been wholly or in part abstracted, so that the product when sold shall tend to deceive the purchaser.
4. If it be an imitation of, and sold under the scientific name of, another article.
5. If it be mixed, colored, powdered or stained in a manner whereby damage is concealed, so that such product, when sold, shall tend to deceive the purchaser.
6. If it contain any added poisonous ingredient, or any ingredient, which may render such article injurious to the health of the person consuming it.

This would apply to extracted-honey when adulterated. The chief point is that an article is condemned when it deceives the public. It was the first Bill introduced in the LIId Congress, and hardly a day has gone by since its introduction, that Senator Paddock has not appealed to the Senate to let this measure be considered. It ought to pass both Houses of Congress, and become a law.

◆

A Curious Ceremony is mentioned by a clergyman who lives upon an estate in Switzerland, as having been lately performed there with the bees. He says:

The proprietor of a large domain not far from the mouth of the Rhone died. As soon as life was extinct, one of the relatives went to the bee-hives and attached a piece of crape to each hive, saying to each, "The master is dead."

On the day of the interment the same relative again visited the hives; took off the crape, and carried to each hive some cake and some wine, which had remained from the collation.

Dipping a piece of cake in the wine, he placed some at the eatrance of each hive, each time repeating, "In the name of the Father, and of the Son, and of the Holy Ghost."

He said that if it had not been done, the bees would not have recognized their new master, but would have left.

A Swiss, however, informs me, that the custom is general among bee-keepers, but the belief is that if it were neglected the bees would die instead of migrating.

◆

Comb Setter and Cells.—To know how to call things by their right names is an accomplishment, especially when speaking of things apicultural. How wide of the correct terms some bee-keepers come, is shown by the following verbatim request received recently by a dealer in apiarian supplies:

"DEAR SIR:—How soon can you furnish comb setter and 1-pound cells? Give price per M, and for 250 cells."

Comb setter and cells! Could the writer have meant "frames" or "foundation," and "sections?" Perhaps he did, but evidently did not know what to call them. If such people are as ignorant of the practical work of the apiary, as of the use of the names of the articles they must use, it is no wonder that failure is oftener met with by them than success. It pays to acquaint ourselves with everything relating to our vocation, including bee-literature.

◆

Another bee-book has reached our desk. It is entitled, "First Principles in Progressive Bee-Culture," by G. K. Hubbard, of Fort Wayne, Ind. Price, 15 cents. It contains 68 pages, is well printed and illustrated, and covers the whole ground of the art of bee-keeping in a condensed way. It is a new edition of his smaller pamphlets, and is the 11th thousand.

◆

Busy Bees, and How to Manage Them, by W. S. Pouder. Price 10 cents. For sale at this office.

The Fools are not all dead. A patent has just been issued to U. G. Matthew on a bee-hive. His claims are as follows:

1. A bee-hive having the bottom provided with a ventilating-opening, and a moth-trap, and guides on the said hinged bottom, whereby the moth-trap may be moved to either close or uncover the ventilating-opening, substantially as described.

2. A bee-hive having the supporting-legs, the hinged bottom, with the ventilating-opening and the guides, and the moth-trap having flanges fitting in the guides, and adapted to be moved to close or uncover the ventilating-opening, substantially as described.

It is the same old "moth-trap humbug"—with not a *new* feature in it. What a *swindle* the patent office is! Patents are issued on old, worn-out, and worthless features of bee-hives; the poor inventor being deceived, and made to believe that he has something of value, when even the paper used in recording the patent is spoiled by that worthless transaction. There is absolutely no value in this new patent, and the inventor is defrauded out of his money.

* * *

Mrs. Potter Palmer, President of the Board of Lady Managers of the World's Fair, will drive the last nail used in completion of the Woman's Building. This nail will be furnished by the women of Montana, and will be a very wonderful one, as is indicated by this description of it, given by the Helena, Montana, *Independent:*

> The nail has been so made as to form the back or cross-bar of a brooch, which is to be a shield bearing the coat-of-arms of Montana, reproduced in native gold without a trace of alloy in its composition. The shield will be of gold, and the symbolical figures will be made of the same metal, but of different colors. The waterfall in the foreground will be of light colored gold, sunk into the shield, and the plow and pick, standing at the foot of the falls, will be of a darker shade, as will be the background or relief. The wreath surrounding the escutcheon will be of native gold, and the figures of the two men supporting the whole on either side will also be of the same rich, yellow gold. Underneath will be the scroll, bearing the motto of the State, "*Oro y Plata.*" In the two upper portions of the wreath two Montana sapphires will be inserted. Instead of merely engraving the figures, each will be wrought separately, and then fastened together, making the task of shaping the brooch not only a delicate, but exceedingly difficult one, and one that will require much skill and patience.
>
> To Mrs. J. E. Rickards, of Butte, belongs the credit of the happy idea of making the last nail one of such interest. In design the nail, which is being made by a Butte jeweler, will be the counterpart of an ordinary twelve-penny nail, and will be composed of three strips with silver in the center, and the gold and copper on either side. The nail and brooch are distinct articles, and after the former has been driven it will be drawn from the wood, fastened to the brooch, and the whole presented to Mrs. Palmer.

The women of Nebraska have undertaken to furnish the hammer with which this "last nail" will be driven. A description of the hammer has not yet been given, but it is the intention to make it worthy of the aristocratic nail with which it will be brought in contact by Mrs. Palmer. It has been suggested that it be made of native Nebraska woods, inlaid with gold, silver and pearl.

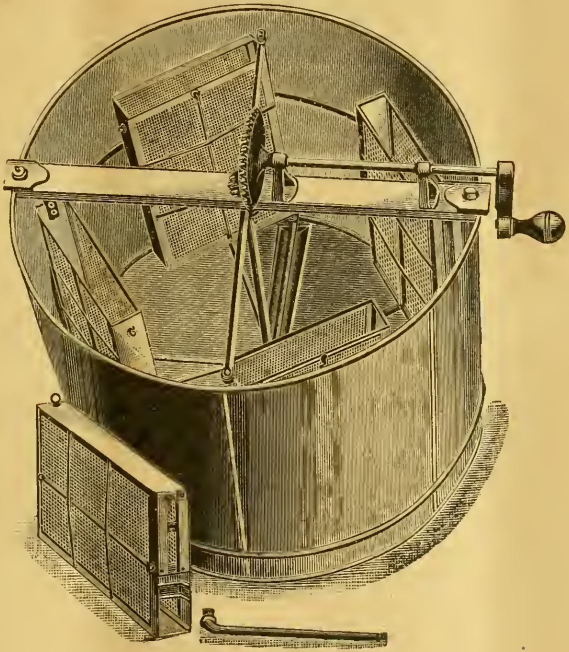
* * *

Fatal Maladies among bees are to be found at all times in some part of the country, the same as among other animals. But just to what extent may be the resulting fatalities, and to what degree such may affect the general wealth, are often difficult to determine. In the Toledo *Blade* for March 15, 1892, a "special" from Shepherd, Mich., under the heading, "A Short Honey Crop," says this concerning the bees in two counties in the central part of that State:

> Many colonies of bees have been lost this Winter through Isabella and Clare counties. There is evidently some fatal malady in beedom, that will shorten the honey crop very materially.

A Reversible Extractor.—R. F. Holtermann, of Brantford, Ont., has sent an engraving and the following description of the new "Goold Reversible Honey-Extractor:"

The engraving herewith illustrates a reversible honey-extractor made and patented by E. L. Goold & Co., of Brantford, Ont. It can be made either as a two-frame or four-frame machine. For a two-frame Langstroth a can 23½ inches in diameter is required; for a four-frame the diameter must be 27 inches. The baskets are reversed by means of a positive lever motion. The levers radiating from the center shaft work in a slot in the bottom of the comb pockets.



The Goold Reversible Honey-Extractor.

Reversing the crank reverses the center shaft, which in turn revolves the levers a little way, and thus causes the pockets to be swung around.

Unlike the Stanley extractor, when one pocket reverses, all must reverse. This is a great advantage.

The extractor has been in the hands of Goold & Co. for over a year, their object being to thoroughly perfect it before giving it to the public. It was carefully tried by some customers and myself in the apiary last year, and several changes have been made since its first invention.

The machine took the first prize at the Toronto Industrial Exhibition last Fall, for the best and most practical invention not heretofore shown at that exhibition. There were five inventions competing.

Preparing for the Harvest.—One secret of success in securing comb-honey is to have the brood-combs all occupied with brood before the honey harvest opens, so that when the harvest commences the bees are obliged to put the honey in the sections.

If we use a small brood-chamber, it will be seen that the brood comes clear to the tops of the frames or hive, and consequently very close to the sections, hence the bees readily enter the sections, while with a large brood-chamber the bees store the comb the queen does not occupy, with honey at the beginning of harvest, so that the sections are excluded from the brood by several inches of sealed honey, and they do not readily fill them, or refuse to go in at all.—*O. J. Farmer.*

A Little Girl's Wishes.

E. BENTLEY.

I wish I were as busy
  As the cunning little bee;
I wish I were a sparrow brown,
  To fly from bush to tree.

I wish I were the sunlight,
  To sparkle every day;
I wish I were the the roses,
  So fragrant, bright and gay.

I wish I were the silver moon
  That's gleaming up on high;
I wish I were the tiny stars—
  Those flowers of the sky.

Queries and Replies.

How Bees Carry Propolis.

QUERY 812.—1. Do bees carry propolis on their legs as they do pollen? 2. If not, how do they carry it?—W.

1. Yes.—A. J. COOK.

1. Yes.—J. A. GREEN.

1. Yes.—C. C. MILLER.

1. Yes.—R. L. TAYLOR.

1. Yes.—H. D. CUTTING.

1. Yes.—DADANT & SON.

1. Yes.—S. I. FREEBORN.

1. Yes.—JAMES HEDDON.

1. Yes.—J. P. H. BROWN.

1. Yes.—G. M. DOOLITTLE.

1. Yes, just the same.—MRS. J. N. HEATER.

1 and 2. I do not know.—J. M. HAMBAUGH.

1. They do, and in no other way.—M. MAHIN.

1. I think they do. 2. I know of no other way.—C. H. DIBBERN.

1. They carry it on their legs.—EUGENE SECOR.

1. Yes, they carry propolis on their legs, the same as pollen.—E. FRANCE.

1. Our best authorities say so. I have not observed any difference.—P. H. ELWOOD.

1. No. 2. In their sac or stomach. In applying it, they seem to eject it.—MRS. L. HARRISON.

1. Not quite the same way, and I almost wish they did not carry propolis at all.—A. B. MASON.

1. Yes. 2. No other way, only in the pollen baskets. She might carry it in her mouth or fore-paws, if she thought about it.—MRS. JENNIE ATCHLEY.

1. I have never noticed this matter at all, but have always assumed they did; and can only ask, myself, "If not, how do they carry it?"—J. E. POND.

1. Yes. The Cyprian bees, I had some years since, were seen to gather vermillion paint, that was partially dried, and pack it on their legs as they do pollen.—G. L. TINKER.

1. Yes. I have often seen them collecting propolis from old discarded bee-quilts, and from hives that had been occupied by bees, and I have seen them packing it in pellets on their legs, just like they load up with pollen. When their load is completed, their appearance is exactly the same as that of other workers loaded with dark-colored pollen.—G. W. DEMAREE.

Yes.—THE EDITOR.

Convention Notices.

UTAH.—The Utah Bee-Keepers' Association will hold its annual convention in Salt Lake City, Utah, on April 7, 1899.
JOHN C. SWANER, Sec.
Salt Lake City, Utah.

COLORADO.—The Spring meeting of the Colorado State Bee-Keepers' Association will be held in Golden, Colo., on April 21, 1892.
E. B. PORTER, Pres.
H. KNIGHT, Sec., Littleton, Colo.

ILLINOIS.—The Spring meeting of the Northern Illinois Bee-Keepers' Association will be held at O. Taylor's, at Harlem, Ill., on May 17, 1892. All are cordially invited.
Cherry Valley, Ill. D. A. FULLER, Sec.

TEXAS.—The 14th annual meeting of the Texas State Bee-Keepers' Association will be held at Greenville, Hunt Co., Tex., on Wednesday and Thursday, April 6 and 7, 1892. All interested are invited. A. H. JONES, Sec.
Golden, Wood Co., Tex.

PENNSYLVANIA.—The tenth semi-annual meeting of the Susquehanna Co. Bee-Keepers' Association will be held at Bullard's Hotel in Brooklyn, Pa., on Thursday, May 5, 1892, at 10 a.m. All are cordially invited.
Harford, Pa. H. M. SEELEY, Sec.

MISSOURI.—The 6th semi-annual convention of the Missouri State Bee-Keepers' Association will be held at Perle Spring, Warrensburg, Mo., on April 7 and 8, 1892, in the parlors of the Minnewawa Hotel—the finest hotel at one of the grandest summer resorts in the State. A good room has been secured for exhibits. A rate of $1.00 per day is promised by the proprietor of the hotel, to all bee-keepers attending. An interesting programme is being prepared. W. S. DORN BLASER, Sec.
Higginsville, Mo.

Topics of Interest.

Shipping Queen-Bees by Mail.

G. M. DOOLITTLE.

No one can go back over the past decade, and especially over the past quarter of a century, without noting the great strides our pursuit, bee-keeping, has made. It would be very interesting to dwell on many of the features covered by this advance, but as this would take many articles, I only propose at this time to speak of the progress made in sending queen-bees by mail.

Those familiar with the pages of the AMERICAN BEE JOURNAL during the immediate past, know that the honor of sending the first queen by mail belongs to Mr. C. J. Robinson, as per his statements alluded to. The first queen was sent only a few hundred miles; this distance not being encumbered by any of the slow, tedious stage routes which have to be encountered when sending queens into some of the newer portions of our country.

To have a queen reach her destination alive, where she travels over only a few hundred miles, on our fastest railroad trains, is a very different thing from what it is to place a queen in a customer's hands who lives thousands of miles away, where the last part of the route has to be taken in a stage coach; or, worse still, where the queen is allowed to stay in a mail bag, which is left for hours in the sun of some tropical clime.

I commenced to send queens by mail when the only food known or used was honey in the comb. Later, honey in a sponge was used, but the sending of queens in the mails, with honey as food, as then used, became a nuisance to those handling the mails, in that it was liable to daub much of the contents of the mail-bag in which such food and queens went.

For this reason the postal authorities "sat down" on us, and we had to look for something as a substitute in the line of food. This brought forward hard candy, tin water bottles, cream candy, etc., all of which proved inefficient, and hundreds, if not thousands, of queens perished, unless their destination was reached within a few days after they were started.

But bee-keepers are a persistent set, and through this trait was brought the food that we now use, namely: honey with powdered sugar stirred and kneaded into it, until a stiff dough is formed, which proves to be all that is required in the shape of food. This food required a remodeling of shipping cages, and they have grown from the old, rough cage, made by nailing up pieces of sections, to the handsome cages on the Benton principles, of the present, with their different compartments, and many little windows and doors for ventilation.

With the former cages and food, I succeeded in sending queens to all near and direct points, with a loss of only about 5 per cent.; but when it came to sending queens to Texas, California, Oregon and such distant States, my loss would be fully one-half of all queens sent out. These losses were hard to be reconciled to, and many a time have I resolved that I would send no more queens to such remote parts and guarantee safe arrival.

Skipping the intervening years, with all their minutia of detail, I will say that in shipping queens, last year was a decided success with me, where the queens were not destined beyond the bounds of North America. I have sent queens to the Northwest Territory and Florida, and to Quebec, Nova Scotia and to Texas, with a loss not to exceed one per cent.; while the loss has not been greater than 25 per cent. in sending them to the British Isles and the West Indies.

Some of the older readers of the BEE JOURNAL will doubtless remember that some ten or twelve years ago I was the first one to successfully mail queens to Scotland, and from the report which I gave of this successful mailing, came an order from New Zealand for queens by mail, to that place at that time.

This I tried, and actually succeeded in getting one queen over there alive, although she only lived a few minutes after the cage was opened. This queen was only 37 days *en route*, owing to my starting her at just the right time to take an out-going steamer without delay. Not knowing the dates on which the steamers sailed, the next one sent was 72 days *en route*, when, of course, everything was dead, and I became discouraged, giving up the project until the past season. The food used with these queens was honey in the comb.

Last season I mailed 15 queens to Australia, from 11 of which reports have been received. Of this number 7 reached there alive. One of the 7 was very weak when she arrived, and although she lived for nearly two weeks, she never laid an egg. The other 6 are reported to be doing finely, and their daughters are reported as "filling their brood-frames from side to side and from top to bottom, leaving only a small margin of about a half-inch for honey along the top-bars of the frames."

In the light of the past, it seems little less than a miracle, that six out of eleven queens should prove valuable after traveling, in round numbers, more than 10,000 miles; the larger part of this route being through the tropical region, where the heat must be very hard to bear, confined for weeks at a time in mail-bags without opening.

While I say "little less than a miracle," yet as we look over the past and see how, step by step, we have acquired this, we can only see in it the outgrowth of the persistence and energy of our American people, who leave no stone unturned to secure the success of the thing desired.

It would seem that there is no limit to the possibilities of the future, still I am not yet ready to indorse the idea expressed by some, that queens can be successfully sent around the world. There is a limit to the life of the worker bee, and I find by comparing the reports from those receiving these shipments of queens to Australia, that it is very evident that the queen does not live long after all the workers die, and also that the life of the worker bee, while in a shipping cage, is limited to about 40 days.

Borodino, N. Y.

Some of My Experiences.

M. B. NICHOLS.

I notice there has been of late some discussion in regard to the desirable qualities of the different strains of bees, especially of the black and Italian races, and some are inclined to rather ridicule Mr. Ellingwood when defending the black race. Now, I do not profess to be a scientific bee-keeper, nor to be able to solve all of the knotty problems that arise in its connection, and in this article I only wish to present a few facts rather than draw any conclusions. But whatever I do, I want to use that amount of intelligence necessary to success.

Four years ago I purchased 2 colonies of black bees. I bought "Langstroth's Revised;" subscribed for the AMERICAN BEE JOURNAL, also the *Apiculturist*, and am now taking the *American Bee-Keeper*. My bees have done fairly well. I have managed them so they have not swarmed excessively, and one year ago found me with 15 colonies, all but 2 in fine condition, which the past season produced for me 800 pounds of white honey; 300 pounds of comb, and 500 pounds of extracted, which is a good yield for this section any year, and much larger than any one else got here.

I also had 19 colonies in prime condition as to strength and stores, excepting about 4, which I fed early (syrup from granulated sugar) until they had plenty. All went into Winter on the summer stands—on Dec. 29; all had a splendid flight, and there has not been 24 hours since, when the thermometer was below zero, neither has there been a time when they could fly until Feb. 24 and 25, when they were out again, only being closed in about eight weeks.

Now I find 5 colonies of dead bees—3 colonies being pure Italians (all I had), 1 colony hybrids, and 1 black. The 3 colonies of Italians, and the blacks, were in hives exactly alike, and all were on stores of the very best of honey, except one colony of Italians, which I fed about 8 pounds of syrup.

They were all in telescope hives, with a frame over the top to give a chance to pass over the top-bars, covered with burlap, and the space over that stuffed with excelsior.

On examination on Feb. 25, I found the black colony had starved to death. I had miscalculated as to their amount of stores. The 3 colonies of Italians had each from 15 to 20 pounds of sealed honey (basswood and clover), except one which I fed syrup, and that was sealed. Every comb in hives was dry, with not a sign of mold or moisture in any; and, what is more, every frame contained some honey, not one being empty.

These 3 colonies of Italians all had young queens, which I had purchased last Summer.

The colony of hybrids were in a hive constructed differently, and died with 30 pounds of first-class honey over them, while I have 2 colonies of blacks in similar hives that are in fine condition at this writing, as are all, including one colony of dark Carniolans, the queen of which I purchased two years ago.

Now the question arises, why should I lose all of those Italians, while my black bees are wintering finely under exactly like circumstances, and situated the same in every respect—all being in hives alike except those mentioned, and receiving the same care in every way?

I will say before I close, the entrance to all hives are left open their entire length, and all have been kept from snow and ice. I leave the conclusions to be drawn from the facts, to the wise men of the profession.

Hall's Corners, N. Y.

Bee-Hives and Wintering.

D. CHALMERS.

Mr. President and Fellow Bee-Keepers:—In presenting an essay on this subject, it is not my intention to try to determine any particular style of hives, but I will dwell more particularly on the requisites in and about a properly constructed bee-domicile.

The first thing then to be considered is the capacity of a hive. It is very generally conceded that that has been carefully tested and properly demonstrated years ago, by such men as Father Langstroth, the lamented Moses Quinby and others, when they placed the area of the brood-chamber at about 2,000 cubic inches. This estimate, however, allowed the bees passage-ways between the ends of the frames and the interior of the hive—a feature which weighs heavily against open-end frames.

Take, for instance, a hive with closed-end frames, which will give you as much comb space as an open-end frame would do, and what do we find? We find that a hive 12 inches wide, and 12 inches deep, made for the former, would not require to be as large by fully 100 cubic inches as a hive made for the latter.

Although I do not use closed-end frames myself, yet I have a strong inclination to believe that better results could be obtained from them than from open-end frames.

Those blank 100 cubic inches before specified, may well be classed among the leakages of the hive, and who can dispute the fact that the greater the leakages the more will breeding be retarded? In the use of open-end frames, the loss in this way will be less in a long frame than a short one. But another evil here comes up, that is, the sagging of such when filled, if not made of heavier material, and if sagging takes place, you all know that passage-ways under the frames will be contracted, while those above will be widened—the latter evil inducing the bees to build comb just where not wanted, while in the former the comb frames will be glued down solid.

To my mind, a hive of proportionate dimensions would be 13¾ inches long, by 12⅛ inches wide, and 12 inches deep. This gives a hive containing 2,000 cubic inches; but a shorter hive by ¾ of an inch to suit closed-end frames with equal comb space, gives us a hive which we might term "Anno Domini 1892," as that is the number of cubic inches it would contain.

But while many besides myself favor a hive of this description, others again advocate a much longer, and considerably shallower hive. However, we should all aim at getting a hive of just the right capacity, and, taking it for granted that the previous figures are correct, or nearly so, for a hive for breeding and wintering purposes, yet we have to admit that there is not room enough in it for a strong colony of bees during the honey harvest.

We then have to resort to "tiering up," as bee-men term it, or, in other words, place another hive above, or a case of sections. This is where we get our surplus. The former is used if we purpose extracting, but if honey is wanted in the comb, then the latter is more convenient. In either case, the top of the lower frames must be at some distance from the bottom of the upper frames, or sections, otherwise the bees would glue the one to the other.

We should aim, too, at bringing such parts of the interior as closely together as circumstances will permit. Wherever passage-ways must of necessity be left between any two parts of a hive, they should not be less than ¼ of an inch, nor exceed 5/16 in depth, or we should have to contend with evils before pictured. Such passage-ways we term "bee-spaces" Between the lower and upper frames or supers, we find a double and sometimes triple bee-space.

The apiarist has had to do battle in trying to confine the queen or mother-bee to the brood-chamber, and yet allow the honey-gatherers to pass to the combs above. This fight, however, has been reduced to a mere minimum since Mr. D. A. Jones, of Beeton, Ont., applied zinc so accurately punched with oblong holes, that the queen is put at defiance, her shoulder being of somewhat larger proportions than that of the workers.

The use of this zinc over the brood-chamber is wherein it becomes necessary to have a double bee-space, and any contrivance there which causes the queen to halt, is termed an "excluder."

During the past Summer I devised a method of using this zinc, which I consider the most practical form yet introduced, which is to cut it into narrow strips not exceeding four inches, and long enough to cover the hive crosswise of the frames; 5/16 of an inch on one edge of those is bent to a right angle to rest on the comb-frame, the top of which should be just one bee-space below the level of the top of the hive, the flat edge of first placed of said pieces rests on the edge of the hive, and each succeeding piece rests on the one previously placed until the last is reached, when it is reversed, and is supported the same as the first one.

By using this zinc in some such manner, the upper frames are within two bee-spaces of the lower ones. While in using it by the Heddon-Tinker plan they are three bee-spaces apart, and a bee-space in the hive I use contains fully 50 cubic inches, while in the Langstroth it is about 70, which means that amount of space to be filled with bees for nothing, as there is not, or should not be, any comb there.

SUPER FOR COMB-HONEY.

As it is very desirable for comb-honey producers to have well-devised supers, I will show and explain to you a super which I brought to light on June 18, 1891. [See page 377.]

A matter of no little importance in a bee-hive is to have the comb-frames spread to a proper distance apart; they can, we confess, be spaced considerably wider in the surplus hives than in the brood-chamber—in the latter 1 5/16 inches from center to center is sufficient, while in the former 1½ inches is not too much. Care should be used in suspending the frames to have as small a portion of them touch the hives as possible.

All hives, of course, require a bee-entrance at the bottom, and a board or other covering.

This brings us to the exterior of the hive where there is nothing very material to note, other than if the hive was to stand the weather it is better to be well painted, but if protected by an outer case, it is better without paint, and costs that much less. I feel convinced that a colony of bees will winter better in an unpainted hive than in a painted one.

WINTERING BEES.

This brings me to the second part of my essay, or wintering. On this subject I will be brief, and as I have discarded cellar or indoor wintering I have concluded to merely describe the clamp I use.

It is built to accommodate two hives deep in Summer, that is by tiering, while in Winter it affords three inches of packing under the hive, four inches around, and as much as you wish above. The bottom fits inside to allow the sides to run any water over; the siding lies horizontally, the joints are bevelled or ship-lapped, it is shanty roofed, and the roof is shingled.

The siding for the front and back is nailed to two narrow strips that do not quite extend to the bottom or top. When the clamp is constructed, they stand on the bottom, while they require to be short of reaching the top to allow the rafters a rest inside. By using strips in the corner, the clamp is much stronger, and no care need be used to break joints, and should you wish to knock them down in Summer there would not be so many pieces, but it is quite unnecessary to do so, as no better sunshade could be provided.

There are three boards in each bottom, the two outer ones being nailed to two strips for the hive to rest on, while the center board is left loose, to be removed in Summer to allow a current of air to pass through the clamps.

The front of the roof requires to be raised a little to give sufficient ventilation, and there are just two rafters which are fitted inside of the ends to hold the roof in place. A board of proper width is placed between the interior of the clamp and front of the hive, to allow the bees an opening through the packing; this board is nailed to two bevelled pieces, which forms the ends of the entrance. There are two tin slides, with a hole punched in each, to afford a catch in opening or contracting the entrance.

Before closing the hive, the clamp is filled to the level of the bottom pieces, with ashes, cork-dust, chaff, or any other packing, and when the hive and entrance fixtures are in position, fill in all around with packing, but not over the top until you see that provision is made for the moisture to escape through the covering of the hive.

I trust that my explanations have been sufficiently explicit, and of benefit to you.—*Read at the Ontario Bee-Keepers' Convention.*

Poole, Ont.

Bee-Keeping in Kentucky.

WM. BOONE.

My 10 colonies of bees are in good condition, many of them having their central combs one-third full of eggs and brood in all stages. My bees are hybrids, but I intend to have Italians during the coming season. I consider them the best for this country.

I use the Langstroth hive, which I believe the best, all things considered, especially for extracted-honey and large swarms. I have sometimes thought that if the Langstroth frame was but 2 inches shorter and 1 inch less in depth, it might be a better Winter hive, thus putting the bees in a more compact cluster, and so economize space and heat in Winter. We winter our bees on the summer stands here.

There has of late been a great deal said about spacing frames and having them stationary in the hives. I have always had frames 1⅜ inches from center to center, the top-bar 1⅛ inches wide, taking 10 frames in the lower story, and 11 in the upper.

Much has been written about the bee-space within the hive. All the space I want in the hive is just space enough for the bees to travel all around the frames—bottom, sides, ends and tops of frames—in fact, I want the bees to be complete masters of the inside of the hive, for unless they have full control of the frames and hive on the inside, there will always be a lurking place for moths and worms.

If the bees have just space enough to travel around *all* the combs with their heavy loads, and no more, we will not be troubled with burr-combs. Ever since keeping bees I have had some trouble with burr-combs, but in working with my bees during the honey season, I always watch burrs and knots, and keep them all trimmed with a sharp knife, so that they really give very little trouble. I always want the combs so straight and even, that I can lift them out of the hive at any time without crushing or killing a single bee. From my own experience, which is about 15 years with bees, to succeed in any part of our country in the bee-business, is to study the bees well; have good, dry hives, plenty of room inside for the bees to store all the honey they can find, and never open the hive unless for some very necessary work within the hive.

For bees to winter well, and safely pass through until the next honey season, is to have them go into winter quarters strong in numbers, in good, dry hives, the bees kept in the lower story with something to keep the cold wind from blowing against the hives, and with some kind of cover to keep the rain off the hive, so that it can be kept perfectly dry. Let the bees have 30 pounds of good capped honey, where they can get to it at any time they may need it. Cluster them on as few frames as possible, cover the frames well on top, give the hive a reasonable amount of upward ventilation, and disturb the bees as little as possible. With the foregoing, I believe you will have all that is necessary to carry them safely until the next season.

In 1883 and 1884 I had 40 colonies of bees in Langstroth hives. (This is almost the only hive that is used in this part of the country.) I work almost entirely for extracted-honey. My 40 colonies averaged in 1883 and 1884 100 pounds of extracted-honey per colony. The best yield I have ever been able to get from any given number of colonies, was from 7 colonies of Italians, which gave me 2,100 pounds of extracted-honey, in each of the two seasons of 1883 and 1884. These two were the best seasons we have had in Kentucky for many years. We have had none since half as good.

Our only honey resources in this part of the country are locust bloom and white clover. None of us ever sow any crops for honey, but depend upon the natural resources for our honey. None in Kentucky make a specialty of honey or bees, and while there are a great many here that have bees, yet very few can be called successful bee-men.

We sell nearly all of our honey at home, but the prices are too low. Comb-honey is worth 15 cents per pound, and extracted 10 cents, with sales slow. How shall we create a better market? I cannot see how, so long as there are so many half-way bee-men here. They bring their honey to town and sell it for anything they can get—trade, sell or swap for anything they may need, and thus they destroy the honey-trade. Such persons ought to go to the mountains and stay there.

It is a hard Winter here. To-day snow is 10 inches deep—a thing unusual here this late in the Spring; but we often have "tempest and sunshine" as well.

Lexington, Ky., March 18, 1892.

Putting on Surplus Arrangements in Time

JOHN D. A. FISHER.

I want to say a word to those who are just starting in the business of producing comb-honey; also to farmers who wish to produce their own honey for family use.

We have been taught by bee-books that the right time to put on surplus arrangements is when the bees began to build small burr-combs—little bits of white comb about the top of the frames.

My experience has taught me that that is a little too late here in our Sunny South. Do not wait until the bees begin to build these bits of comb, but just as soon as you find that they are building up rapidly, and the queen is filling the brood-chamber, put on the sections, or whatever surplus arrangements you intend to use. Do not wait until the queen has the brood-chamber full, for if you do the bees will swarm instead of going into the sections.

If your hives are good ones, and well protected, there is not much danger of getting the surplus arrangements on too early—better two weeks too early than one week too late.

Bees make preparations to swarm here in the South very early—a great deal sooner than most bee-men and farmers that keep bees think they do. Hence, we hear such a large per cent. of them say they get no honey, that their bees do not pay, etc.

Some say their bees will do nothing but swarm. If you get the surplus arrangements ready, sections all put up, and foundation starters in the sections before the bees think about swarming (by all means keep ahead of your bees), then, as stated above, when the bees begin to build up fast in numbers, put on the surplus arrangements, tuck them down tight, cover up well, leave no cracks for the heat to escape, or the wind to blow in, nine cases out of ten you will get the bees to work in the supers, and secure a nice lot honey. To make it more sure, fill two or three sections in the center with nice white comb.

If, after the surplus arrangements have been on the hive two or three weeks, you find that the bees have not gone to work in the sections, take a frame that has brood in it, cut out enough to fill two or three sections, then put them in the center of the surplus arrangement, and the bees will go right up and work.

Do not let the bees get the start of you, and swarm; if you do, the honey crop will be short. The only hope will be in prime swarms.

Should the bees get the start of you and go to swarming—what then? Why, have the hives in readiness, also supers to go on the hives. Hive the prime swarm, remove the old stand, put the swarm where the old hive stood, put on the sections at once, and you will get honey, if there is any for the bees to gather.

Mr. Caleb Canupp first called my attention to the fact that we let our bees get the start of us in the Spring, and that we did not put on our supers early enough. I have found that he was correct.

Woodside, N. C.

German or Black Bees vs. Italians.

H. C. FARNUM.

Since Mr. Ellingwood first took up what he calls the "cudgel" in defense of the German or black bees, it has excited quite a number, and caused them to give their opinions also.

Although I am in favor of the black race of bees, and decidedly so, I must say that some writers go to extremes trying to defend their sides of the story. On page 253 is John H. Blanken's defense of the black race of bees, in which he says: They are tough, and can stand the cold weather better than any other race; need no double-walled hives, or cellar wintering; will gather more surplus honey, are busier, and are not as cross as the other races.

I am afraid Mr. Blanken would have bee-keepers think that no other race except the blacks are good for anything; and also would make us think that if we had black bees we would need no double-walled hives, or cellar wintering. But I am sure that my black bees need as much protection in Winter as do the Italians, and the Italians certainly are not as cross as the blacks.

It is quite evident that Mr. B. has never had much direct experience with the Italians, or he certainly would not class them as an inferior race of bees. Even Mr. Ellingwood does not class the Italians with the inferior races of bees, but says: "I am thoroughly convinced that the black race of bees is a very valuable one, and that with the same care and attention that is given the Italians, they will give good results."

In my experience with Italians, I find they are not an inferior race of bees—far from it; but I do say that the blacks are ahead in honey-gathering in my location, especially when honey is scarce; as last season my Italian bees did scarcely anything. Also a neighbor bee-keeper, who had nothing else but Italians, did not get any honey, and had to feed some of his bees; while my black bees stored, on an average, about 10 pounds per colony. In view of this, I think the qualities of the black bees should be defended.

Transit Bridge, N. Y.

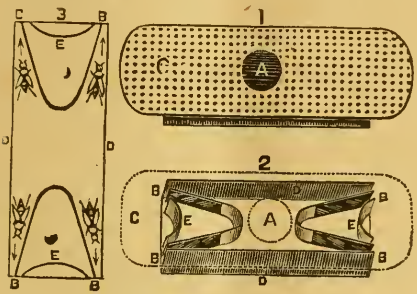
The "Lightning" Bee-Escape.

M. E. HASTINGS.

The engraving below is a sectional picture of the "lightning" bee-escape.

Figure 1 shows the escape complete, ready for the board. C is the perforated top, which allows free ventilation from the hive to the supers. A is the top opening which the bees enter on leaving the supers.

Figure 2 shows the escape with the top removed. A is an outline of top entrance. B, B, B, B are the outlets from the escape to the hive. C is an outline of top plate. D, D are side walls, and E, E are circular end walls.



The "Lightning" Bee-Escape.

The ground plan shows the bees passing out through the four passages toward B, each bee pushing against the spring as it passes out. It is impossible for them to return, there being only space enough for a drone to leave between the ends of E, E, and the side walls, D, D; and the springs hang in the center between the above mentioned walls.

By simply placing a suitable board, with a bee-space top and bottom, having an escape in the center, between the the supers and the hive, the escape will do the work that was most dreaded—that of harvesting the surplus honey, with neither the taint of smoke nor the capping injured, leaving the honey in perfect condition for market.

It will clear the supers in from 2 to 4 hours. One super containing 27 one-pound sections was cleared of every bee in 1 hour and 43 minutes.

Directions for Shipping Bees.

MRS. L. HARRISON.

Spring is the best time to purchase bees, and although it is advisable to patronize one's own neighborhood, it is not always practicable. The choice among the varieties of bees, or the desirable hive, may not be there to be obtained, and colonies can be shipped long distances, and arrive at their destination in good condition, provided they are started right.

It is very important that the frames do not knock together, killing the queen or bees, or breaking the combs from the frames. Bees that are shipped in early Spring, which have not had their frames lifted during the Winter or Spring, need no other fastening than that which the bees have already done. Where the frames rest on metal, so they will not be thus fastened, they should be spaced above and below with a piece of notched board. No bee-keeper, who has a reputation to sustain, can afford to ship any colony but a good healthy one, with the frames fastened with wire nails, or spaced as described.

Whether little or much ventilation is needed while bees are in transportation, depends in a great measure upon the time of the year, the weather, also the size of the colony. Good sense would seem to teach us that a hive that was full to overflowing with bees would require more air than a hive with a very small colony in it. Colonies that are shipped in early Spring when there are but few bees, need little ventilation. It is not best to ship bees until all danger from severe freezing weather is past, as the cold makes the comb brittle, and it will break easily from the frames.

If you send bees by public carriers, make this resolve, that you will do your work faithfully and well, and that nothing less than a railway accident or steamboat explosion will let those bees out.

Where bees were covered with new muslin last Fall, and the upper story shut down it, it might be safe to ship thus, as far as the bees are concerned; but suppose a meddlesome fellow comes along and pulls up a corner of the muslin, or cuts a hole in it, what then? Either nail a board of the right dimensions to fit down nicely over the brood-frames, and nail it well so that no jack-knife can pry it up, or nail the upper story to the lower, and the cover upon it. If it is very warm weather it might be necessary to give ventilation above, but we are now talking of shipping bees in early Spring.

When the hives are all secure at the top, look at the entrances, and see how a small amount of air can be admitted, and at the same time not let the bees escape.

Our hives are the eight-frame Langstroth with portico, and one Spring I fastened them in this way: I fitted a piece of pine board, so that it would exactly fit in the entrance, and then cut little grooves in it on the sides next to the body and bottom of the hive. I learned subsequently that the bees arrived at their destination all right.

Later in the season I fitted a block into the entrance as before, using an empty hive, as all the hives in the apiary are of the same size, and placing a piece of wire mesh over the entrance, drove in the block, which molded it into the right shape. When I wanted to fasten a colony in, I slipped the mesh in, and nailed over the edges little strips of wood.

In shipping 4 colonies of bees at one time to the same party, the report came back that the smallest colonies were all right, but a large one had many dead bees, for the bees had crowded together trying to get through the mesh, and smothered. When bees are put into a car for transit, the frames should run the long way of the car.—*Prairie Farmer.*

Rules for Judging Bees at Fairs.

GEO. F. ROBBINS.

I wish to thank Mr. Hutchinson for his commendation and criticisms of my effort toward a code of rules for judging bees and honey at fairs, on page 382. The remarks on judging bees deserve some attention.

It was not designed that a nucleus of bees should contain more than one frame, as should, I think, be inferred from the text of rules and remarks as given, but there should, perhaps, be a rule covering that ground. I suppose it was not advisable, as he says, to have a large quantity of bees thus caged up.

The same may be said of brood; and if fairs were held at the height of the breeding season, that item would be better left out. But, in fact, they generally come at a time when it is difficult to find much or any brood in the hive, hence all that one can find at that time is of value. As brood in all stages would add to the interest of such an article of exhibit, the best scoring should be given the nucleus that comes nearest that.

As to markings of the bees, I am glad Mr. Hutchinson has spoken. I hope others will speak also. On that point, I did not then, and do not now, know what to say. If premiums are to be awarded on nuclei of bees at all, there should be some standard of judgment, but what the standard or standards shall be, is too hard a problem for me. At the Sangamon Fair, of 1891, the darkest Italians took the premium, while the yellowest and most beautiful were "left out in the cold."

P. S.—At the time of writing the foregoing, I had failed to notice the communications of Messrs. Michael and Kildow, on page 391. All these correspondents pretty much agree. Well, let them come. That is what I want. But while tearing my rules, or standard, to prices, can someone construct something better?

Mechanicsburg, Ills.

How to Introduce Virgin Queens.

MRS. JENNIE ATCHLEY.

I will try to tell how I introduce virgin queens.

First, take a cage without wire cloth, that is, a tight cage except the side next to the comb. Cage the queen over some brood hatching, or nearly so, using a cage large enough to cover 100 cells, or more; and, by no means, or under any circumstances, allow the bees to see the queen, or smell her through the cage. If the colony is queenless, the virgin will be as safely introduced as any fertile queen.

When I have a valuable queen of any kind, I introduce in the above way.

If I have lost a single queen in three years, I do not remember it. It does not matter what age, or how wild the virgin is; but if she is not received just the same as if hatched there, why, your bees do not act like mine.

I find that one great cause of queens of any kind being rejected, is on account of the bees gnawing and throwing "sting poison" at the queen through the cage. You know that you can take a queen from a colony of bees, and let one strange bee sting at her, and get "sting poison" on her, then turn her loose again in her own hive, and her bees will "ball" her. The reader doubtless sees the point.

Floyd, Tex.

Bee-Notes from Southeastern Kansas.

THEO. NAANES.

The "Bee and Honey Gossip" is usually what I read first when the AMERICAN BEE JOURNAL arrives, hoping to hear from some Kansas bee-keeper; but few have reported. I am sure that more of us should write our experience, as I find that many of the plans advised by Eastern apiarists do not succeed here.

We get honey here every month, from May until October, when seasonable; but we have two big "mountains" here in Southeastern Kansas, which, it seems, will ever separate the bee-men from a large bank account. These "mountains" are, dry weather, and cold nights. When we get around one, the other is pretty sure to loom up. We have no alfalfa, a very little white clover, and no basswood; and yet we have never missed having some right royal feasts of toothsome honey every Summer since I have kept bees.

Besides this, the bee-yard is the most interesting spot on the farm. I now have 25 colonies, with the prospect none too bright for them, as each hive contains from 3 to 5 frames of brood, and 4 inches of snow on the ground to-day—March 15. Bees have eaten lots of honey this Winter, and must nearly all be fed.

I would not advise any one here to put on a full crate of sections at once. It may do where there are whole fields of white clover, or basswood trees by the hundred, but it will not work for me.

Italians? Yes; hybrids! every time, before black bees.

If you are using frames 12 or 14 inches deep, just try some about half as deep, and then report.

Honey comes slowly here, and I have to watch pretty sharp to keep from having more swarms than honey, whether the hives be large or small.

I always get the most honey from those not allowed to swarm. Right here I once made a *big* mistake. For several seasons in succession I had no swarms, by using two-story hives with 12 Gallup frames each, and by vigilant destruction of queen-cells and drone combs. I got lots of honey at first, and felt as if I owned a gold mine.

About the third season my crop of queen-cells and drone-comb was immense. So much "eternal vigilance" became monotonous, and ceased to be either interesting or agreeable. It was just "monkey, monkey" all the time, with my bees growing lighter and lazier every day.

Now, they knew better, by all odds, what they needed, than I did.

I imagine the "Old Vets," when they read this, will smile at my ignorance, and say, "Why didn't he give them a young queen?" Well, I didn't know enough.

All my queens were reared from cells built by small nuclei, except some I bought, and perhaps they were, too.

My *very best* queens are from cells built and sealed in a colony under the swarming impulse. A good, young queen is "half the battle."

Galesburg, Kans.

Progeny of Imported Italian Queens.

QUEEN-BREEDER.

I notice in the Queries, on page 380, and elsewhere, there seems to be a tendency to accuse the bees we import from Italy of not breeding true, and of sporting. It appears to me there is more guessing in this matter than observation, or else the queens received from Italy in the past were entirely different from what we receive now.

Of all the queens I have imported from Italy, I have never had one that did not show three bands, and their bees were all even.

That bees become more yellow, in this country, by being bred for any number of generations without the introduction of any foreign blood, I do not believe possible.

I have no objections to the "golden," "the five-banded," or any other bee, be it as yellow as it may; but I do not assert as my belief, that if standard imported queens are used, in a situation where no foreign blood can possibly become mixed with them, their progeny could not be made to produce five-banded bees.

☞ When we commenced bee-keeping 25 years ago we had to buy boards in the rough for hives, and rip out the stuff for frames with a hand-saw. We well remember making sections out of common lath by planing them down. Now all is changed. All there is to do is to send in your order early, and in due time get the "stuff" as good as human skill and machinery can make it.—C. H. DIBBERN, in the *Western Plowman*.

CONVENTION DIRECTORY.

Time and place of meeting.

1892.
Apr. 6, 7.—Texas State, at Greenville, Tex.
A. H. Jones, Sec., Golden, Tex.

Apr. 7.—Utah, at Salt Lake City, Utah.
John C. Swaner, Sec., Salt Lake City, Utah.

Apr. 7, 8.—Missouri State, at Warrensburg, Mo.
W. S. Dorn Blaser, Sec., Higginsville, Mo.

Apr. 13.—Fayette Co., at Washington C. H., O.
S. R. Morris, Sec., Bloomingsburg, Ohio.

Apr. 21.—Colorado State, at Golden, Colo.
H. Knight, Sec., Littleton, Colo.

May 5.—Susquehanna Co., at Brooklyn, Pa.
H. M. Seeley, Sec., Harford, Pa.

May 17.—Northern Illinois, at Harlem, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

May 28.—Haldimand, at Nelles' Corners, Ont.
E. C. Campbell, Sec. Cayuga, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Eugene Secor..Forest City, Iowa.
SECRETARY—W. Z. Hutchinson....Flint, Mich.

National Bee-Keepers' Union.

PRESIDENT—James Heddon ..Dowagiac, Mich.
SEC'Y AND MANAGER—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Losses of Bees.

March is proving a very hard month on the bees, and I shall expect heavy losses in this State.

GEO. E. HILTON.
Fremont, Mich., March 20, 1892.

Short of Stores—Late Pollen.

On March 3 my bees started to work on the soft maple, which is in great abundance here in the Illinois and Lemaine River bottoms. The cool north and northeast winds constantly prevailing so long, I fear has injured our first pollen bloom, and hindered brood-rearing, which ought to be in progress now. Last October I commenced preparing my colonies for Winter, which consisted of a contracted Simplicity brood-chamber, with burlap on both sides of the frames, and over the cluster. Thinking they were supplied with sufficient stores for wintering, I did not notice them until Spring, and on examination I found many of them apparently dead. I picked up the hives, and took them into the house, where the mercury was up to Summer heat. They soon commenced to revive. By preparing and feeding granulated-sugar syrup for them, they were soon humming around the room.

D. O'CONNELL.
Cooperstown, Ills., March 17, 1892.

Willing to Go to Ceylon.

I have read W. P. Faylor's article on page 382. I am a bachelor, 40 years old, and have an apiary of 20 colonies of bees, and have had five years' experience. If the readers of the AMERICAN BEE JOURNAL think it will be a paying investment, I am willing to go to Ceylon and start an apiary and ship queens to this country—if there can be means raised to meet expenses.

J. W. CRUM.
Streator, Ills., March 18, 1892.

Industrious Bees.

Bees are in splendid condition here now. They have plenty of honey, but it tastes rather bitter. It was gathered last Fall from weeds. Drones are flying, and young queens are commencing to lay promptly. I wintered some very weak nuclei to save fine young queens. My bees are mostly of the golden strain; they are as industrious as any leather-colored bees.

F. C. MORROW.
Wallaceburg, Ark., March 21, 1891.

Wintered Well on Honey-Dew.

Who will now say that bees will not winter on honey-dew, as last season a large part of all the stores they gathered was composed of that stuff, not fit to be eaten; but I believe bees never wintered better. Some colonies are getting real short of stores on account of rearing so much brood. On March 8 they were working on the maple bloom. The prospect for a crop of white clover honey, this year, is very good, but last year the bees gathered but little, there was so very much rain.

JOHN HASKINS.
Douglas, Mo., March 17, 1892.

Wavelets of News.

Reckless Driving Around Bees.

Lately there was a swarm of our bees rounding up and flying quite low in the street; so low indeed, that I thought they were going to cluster upon the black mud, as it had been raining. I saw a man approaching, driving à one-horse wagon, and I motioned him to drive another way, telling him that the bees might sting his horse. He drove right through them, and the bees followed him fully a square; the poor horse was terrified, and had he had more oats there might have been trouble; but he was a crow-bait. In most instances where horses are stung to death by bees, it is owing to the carelessness of their drivers; and they should never be hitched close to a colony.—MRS. L. HARRISON, in the *Prairie Farmer.*

Free Delivery of Farm Mail.

It will cost the Government nothing but the expense of the plant. The profit will be immediate and large. Aid, in every way, the hastening of this good day when every farmer will have at his door the postman, whose visits now are monopolized by the inhabitants of the cities. The rich and the poor are treated alike there; the day is near when the citizen of every age and condition will be treated alike, regardless of his place of residence.

Public opinion will compel it. The farmer's vote is a power in the land; it outnumbers the residents of the cities; his voice is heeded when he demands.—*Agricultural Review.*

Birds as Horticulturists' Enemies.

The question of the bees injuring fruit is again brought up by those who devote more study to horticulture than to bees; but if these same fruit-growers would look to the birds, they would find that they are their enemies, and not the bees.

The birds are not only the enemies of the fruit-growers, but the enemies of the bee-keepers. If it were not for the great prolificness of the queen-bees, whole colonies of bees would be destroyed by the voracious birds. So determined do the bees become, at times, that they follow the bees up to their hives, and watch for their coming out to seize them. The shot-gun is the only appeal for the bee-keeper at such times.

In the fields the birds are attracted to the bees, probably for the little sacs of honey which they carry, and not so much for the bees themselves.

The birds are also the chief offenders against the fruit-growers. They pierce the fruit with their bills, and allow the nectar to escape. Decay soon sets in, but the bees are on hand, and sip the juice as it escapes. They never touch sound fruit, but always go for those having the skin punctured by the birds, thorns or limbs.—*American Cultivator.*

Advantage of Persistence.

An English firm that manufactures a condiment of world-wide fame had been in the habit of advertising to the extent of about £5,000 a year through one of the most eminent advertising agencies in London. They thought they could dispense with advertising, seeing that their specialty was on every table. Accordingly all orders and contracts were stopped. Sales began to fall off, and the decrease continued until the firm went back to their agents and announced that they would advertise again.

But the decline had become so serious that, in order to recover lost ground, they have now to spend £10,000 a year where formerly they spent £5,000. It is well known that wholesale houses reduce their orders when they find that the article they have been dealing in is no longer advertised. They do this to save themselves from future loss, because their experience teaches them that the public demand declines as advertising declines.—*Exchange.*

Make No Mistake.

Bee-keepers who are looking for a good bee-periodical, will make no mistake if they invest in the Weekly AMERICAN BEE JOURNAL pubished by Brother Thomas G. Newman, Chicago. It is lively, progressive, and costs but a couple of cents a week for a magazine of 32 pages, or 1,680 pages a year.—*Lewiston, Maine, Journal.*

The ILLUSTRATED HOME JOURNAL is a valuable and interesting family magazine, full of facts, news, anecdotes, history, recipes, puzzles, etc.—in fact something that will interest the whole family from the sedate Pater-Familias to the most rollicksome kid.—*Colorado Farmer.*

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OLDEST BEE PAPER IN AMERICA
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BUSINESS MANAGER.

Special Notices.

☞ Send us *one new* subscription, with $1.00, and we will present you with a nice Pocket Dictionary.

☞ The date on the wrapper-label of this paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to pay for another year.

☞ Systematic work in the Apiary will pay. Use the Apiary Register. It costs:

For	50 colonies (120 pages)	$1 00
"	100 colonies (220 pages)	1 25
"	200 colonies (420 pages)	1 50

☞ As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.

YOU NEED an Apiary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for $1.25; or for 200 colonies for $1.50. *Order one now.*

◆

Supply Dealers desiring to sell our book, "Bees and Honey," should write for terms.

◆

We Club the American Bee Journal and the Illustrated Home Journal, one year for $1.35. Both of these and Gleanings in Bee Culture, for one year for $2.15.

◆

If You Have any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time.

◆

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

◆

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

◆

When talking about Bees to your friend or neighbor, you will oblige us by commending the BEE JOURNAL to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the Convention Hand-Book by mail, postpaid. It sells at 50 cents.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club.*
The American Bee Journal......	$1 00....	
and Gleanings in Bee-Culture....	2 00....	1 75
Bee-Keepers' Guide.....	1 50....	1 40
Bee-Keepers' Review........	2 00....	1 75
The Apiculturist.............	1 75....	1 65
Canadian Bee Journal.......	2 00 ...	1 75
American Bee-Keeper.......	1 50....	1 40
The 7 above-named papers	5 75....	5 00
and Langstroth Revised (Dadant)	2 40....	2 25
Cook's Manual (1887 edition)	2 25....	2 00
Quinby's New Bee-Keeping.	2 50....	2 25
Doolittle on Queen-Rearing.	2 00....	1 75
Bees and Honey (Newman)..	2 00....	1 75
Binder for Am. Bee Journal.	1 50....	1 40
Dzierzon's Bee-Book (cloth).	3 00....	2 00
Root's A B C of Bee-Culture	2 25....	2 10
Farmer's Account Book.....	4 00....	2 20
Western World Guide	1 50....	1 30
Heddon's book, "Success,"..	1 50....	1 40
A Year Among the Bees	1 50....	1 35
Convention Hand-Book......	1 50....	1 30
Weekly Inter-Ocean.........	2 00....	1 75
Toronto Globe (weekly)......	2 00....	1 70
History of National Society.	1 50....	1 25
American Poultry Journal..	2 25....	1 50
The Lever (Temperance)	2 00....	1 75
Orange Judd Farmer........	2 00 ...	1 75
Farm, Field and Stockman..	2 00....	1 75
Prairie Farmer..............	2 00....	1 75
Illustrated Home Journal ..	1 50....	1 35
American Garden	2 50....	2 00
Rural New Yorker	3 00....	2 25
Nebraska Bee-Keeper.......	1 50....	1 35

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

Winter Problem in bee-keeping; by G. R. Pierce, of Iowa, who has had 25 years' experience in bee-keeping, and for the past 5 years has devoted all his time and energies to the pursuit. Price, 50 cents. For sale at this office.

A Nice Pocket Dictionary will be given as a premium for only **one new** subscriber to this JOURNAL, with $1.00. It is a splendid little Dictionary—just right for the pocket. Price, **25 cents.**

The latest edition of "Bees and Honey" is received. It is a gem in literature, and I consider it the finest work on the subject extant. The portraits are alone worth the money. The magnificent engravings are the wonder of the old-time bee-keeper.—S. J. Youngman, Lakeview, Mich.

If You Want to know how Queens are fertilized in upper stories, while an old Queen is laying below—how to *safely introduce* Queens at any time when bees can fly—all about different bees, shipping Queens, forming nuclei, multiplying or uniting colonies, etc.—send us $1.00 for "Doolittle's Queen-Rearing;" 170 pages; bound in cloth, and as interesting as a story.

When Writing a letter be sure to sign it. Too often we get letters with the name of the post-office, but no County or State. One such came recently, and we looked into the Postal Guide and found there were places by that name in 13 States. Be sure to stamp your letter, or it may go to the dead letter office, in Washington, D. C.

The Honey-Bee; Its Natural History, Anatomy and Physiology. By T. W. Cowan, editor of the *British Bee Journal*, 72 figures, and 136 illustrations. $1.00. For sale at this office.

The Amateur Bee-Keeper, by J. W. Rouse; 52 pages. Price, 25c. For sale at this office.

☞ Subscribers who do not receive their papers promptly, should notify us at once.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

WANTED—To know to whom I can sell Popping Corn. Correspondence solicited.
14A2t R. H. CAMPBELL, Madison, Ga.

WANTED—A situation in an apiary or hive manufactory. I am willing to make myself generally useful. J. W. TEFFT.
5Atf 318 Swan St., Buffalo, N. Y.

FOR SALE—The Apiary of Solomon Vrooman, deceased, consisting of one hundred and seven Colonies, and all necessary appliances. For many years the apiary of J. H. Martin, Hartford, Washington Co., N. Y. For particulars, address,
F. S. ELDREDGE,
12A3t 11 N. Church St., No. Adams, Mass.

HONEY AND BEESWAX MARKET.

CHICAGO, Mar. 26.—Fancy white comb selling at 16c.; other grades 10@14c. Extracted slow demand. 6½@7½c. Beeswax, 26c.
S. T. FISH & CO., 189 S. Water St.

NEW YORK, Mar. 26.—Little demand, sufficient supply. We quote: Fancy white 1-lbs., 13@14c.; off grades, 11c.; buckwheat, 9c.—Extracted, California, white clover and basswood, 7@7½c.; Southern, 65@70c. per gallon. Beeswax, very scarce at 28@29c.
HILDRETH BROS. & SEGELKEN,
28-30 West Broadway.

KANSAS CITY, Mo.,Mar. 26.—Demand very slow, supply good. White 1-lbs., 14@15c.; dark, 8@12c. Extracted, white, 7c.; amber, 6@6½c.; dark, 5c. Beeswax, demand good, supply very light; 23@26c. per lb.
CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI. Mar. 26.—Demand is fair for extracted honey at 5@8c. Fair demand and good supply of comb honey at 13@16c. for best white.

Beeswax is in good demand, at 23@25c for good to choice yellow.
C. F. MUTH & SON,
Cor. Freeman & Central Aves.

NEW YORK, Mar. 26.—Demand for honey is very light and supply more than demand. For fair comb, 9@11c. Fancy 1-lbs., 12@13c.; 2-lbs., 12c.; buckwheat, 7@8c. Extracted, clover, 7c.; buckwheat, 6@6½c. Beeswax—Demand moderate, supply enough to meet it; 27@29c. per lb.
CHAS. ISRAEL & BROS., 110 Hudson St.

KANSAS CITY, Mo.,Mar.26—Demand poor, supply of comb honey large. Fancy 1-lbs., 14@15c.; dark, 8@9c. Extracted, white, 7 cents; dark, 5@6c. No beeswax on the market.
HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, Mar. 26.—The demand for comb-honey is light, supply low; 12@13c. per lb. Extracted, 7@8c. Not much in stock. Beeswax—Demand fair and supply good. 27@28c. Very little of old honey crop will be left when new crop comes forward.
M. H. HUNT, Bell Branch, Mich.

CHICAGO, Mar. 26—Demand good and supsufficient. We quote: Comb, 14@16c. Extracted, 6@7c. Beeswax, in light supply, and good demand, at 25@27c.
J. A. LAMON, 44-46 S. Water St.

MILWAUKEE, Mar.26.—Demand very moderate, supply average of all grades but common quality. Best 1-lbs. 15@16c; common, 12@13c. Extracted, white, in barrels, 7c.; in kegs, 7½c; in pails. 7½@8c. Beeswax—demand fair, supply small. Price. 23@28c.
A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO, Mar. 26—Demand light, supply about exhausted. Comb, 1-lb., 10@12c. Extracted, 5¾@6¾c. Beeswax, in light supply and good demand, at 25@27c.
SCHACHT, LEMCKE & STEINER,
16 Drumm Street.

NEW YORK, Mar. 26—Demand moderate, and supply reduced, with no more glassed 1-℔ nor paper cartons, 1-℔. We quote: Comb, 1-℔, 14@15c. Extracted—Basswood, 7¼@7½c; buckwheat, 5½@6¼; Mangrove, 68@75c per gal. Good demand for dark extracted honey. Beeswax, in fair supply, with small demand, at 26@27c.
F. G. STROHMEYER & CO., 122 Water St.

CHICAGO, Mar. 26.—Demand is now good supply is not heavy. We quote: Comb, best grades, 15@16c. Extracted, 6@8c. Beeswax, 26@27c. R. A. BURNETT, 161 S. Water St.

BOSTON, Mar. 26.—Demand is fair, supply ample. We quote: 1-℔. fancy white comb, 13@15c; extracted, 6@7c. Beeswax, none in market.
BLAKE & RIPLEY, 57 Chatham St.

MINNEAPOLIS. MINN.,Mar. 26.—Demand is moderately good, supply not large though considerable No. 2 in sight. White 1-lbs., 15@16 cts.; dark, 10@14c. Extracted, in large packages, white, 8@9c.; small, 9@10c.; dark, not in so good demand and at lower prices. Beeswax, demand good, supply very light on good quality; 26@30c. per lb.
STEWART & ELLIOTT.

NEW YORK, Mar. 26—Demand is light, and supply large, except buckwheat comb. We quote: Fancy white comb, 12@14c; buckwheat, 9@11c. Extracted—Clover and basswood in good demand at 6½@7c; buckwheat ind emand at 5@6c. Beeswax in fair demand at 26@28c.
F. I. SAGE & SON, 183 Reade St.

ALBANY, N. Y., Mar. 26.—Demand is very light, supply ample. Do not think that any will be carried over. We quote: 8@12c. per lb. Extracted, 6@8c. Beeswax—Demand is good, supply light; 28@30c. Cold weather helps to work off the over-crop of honey.
H. R. WRIGHT, 326-328 Broadway.

The Convention Hand-Book is very convenient at Bee-Conventions. It contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with Subjects for Discussion. In addition to this, there are about 50 blank pages, to make notes upon, or to write out questions, as they may come to mind. They are nicely bound in cloth, and are of the right size for the pocket. We will present a copy for one new subscription to the BEE JOURNAL (with $1.00 to pay for the same),or 2 subscribers to the HOME JOURNAL may be sent instead of one for the BEE JOURNAL.

Calvert's No. 1 Phenol, mentioned in Cheshire's Pamphlet on pages 16 and 17, as a cure for foul-brood, can be procured at this office at 25 cents per ounce, by express.

Get a Binder, and always have your BEE JOURNALS ready for reference. We will mail you one for 50 cents.

Supply Dealers should write to us for wholesale terms and cut for Hastings' Perfection Feeders.

THE AMERICAN BEE JOURNAL
CIRCULATES
ALL OVER THE WORLD.
PUBLISHED BY
THOS. G. NEWMAN & SON,
CHICAGO, ILL.

ONE DOLLAR PER YEAR.

Club Rates,—Two copies, **$1.80**; 3 copies, **$2.50**; 4 copies, **$3.20**; 5 copies, **$3.75**. Mailed to any addresses.

THOMAS G. NEWMAN, EDITOR.
GEO. W. YORK, ASSISTANT EDITOR.

Vol. XXIX. April 7, 1892. No. 15.

Editorial Buzzings.

> "**Truth** crushed to earth shall rise again;
> The eternal years of God are hers;
> But error, wounded, writhes with pain
> And dies among its worshipers."

◆

The Principal honey plants of Southern California are the white, green, blue and black sage; buckthorn, alfilaree, wild clover, crowsfoot—white, blue, yellow and pink; wild buckwheat, yerba santa, alfalfa, fruit bloom and the honey-dew from cottonwoods and willows.

◆

The Qualifications of a bee-keeper are gentleness, patience, absence of fear, and perfect command of self. Fear must be overcome or concealed. It may be present at first, but usually gives place to confidence after a little experience. The theory that bees instinctively select some persons as natural enemies, has no foundation in fact.

Granulation of Honey.—A Canadian subscriber writes that last Fall he labeled his extracted-honey with the usual foot-note, saying that: "All pure honey will granulate in cold weather," etc. To his surprise, that honey did not granulate, although he *knows* that it is pure. As a result he stands convicted of selling honey that is not pure, according to his own printed label. He says the honey was of extra fine quality.

The assertion on that label was too sweeping. It is a fact that some *pure* honey will not granulate in cold weather. The opposite is true, viz.: that honey adulterated with glucose will *not* granulate in cold weather, and that is the way the label should have read. There are exceptional cases where pure honey will not granulate, but when honey is granulated, it may be asserted with confidence that it is *pure*.

◆

Prof. A. J. Cook has returned from California in good spirits, and improved in health. On March 28 he wrote to us as follows:

> My work has hardly caught up yet. To be gone four months is quite a setback, but we had a *grand time*. California is a wonderful State—"as near Eden as one can go by railroad," as a friend of mine puts it. You know the "golden gate" is over there.

We hope that we shall return from our "short vacation" as much renewed in health and spirits as is our friend Cook. We have not before had a vacation for rest for 20 years. Have we not earned one by this time?

◆

We are Sorry to learn that our friend, J. E. Pond, of North Attleboro, Mass., is still confined to his residence by *La Grippe*. It is not a bad case, but just enough to keep him housed up in fear of pneumonia.

◆

When honey is coming in plentifully is the best time to rear queens.

A Patent has been granted to Charles W. Metcalf, of California, for a reversible honey-extractor. The combs are placed in receptacles or boxes, mounted at the outer ends of arms, carried by a wheel in a can, and when the wheel is swiftly revolved, the honey is extracted by centrifugal force, and is thrown through the wire sides of the boxes on to the inner side of the can, down which it runs. At intervals the wheel is reversed and rotated in the other direction to expel the honey on the other sides of the combs. It is very similar to several others recently constructed.

The Pure Food Bill.—On March 9 the Paddock Pure Food Bill, says an exchange, passed the United States Senate without a division being called for, the many modifications made in Committee of the Whole having placated all dangerous oppositions.

The Bill, in its present shape, is undoubtedly an improvement on all previous attempts at this sort of legislation, and as its enactment is evidently desired by a great number of agricultural, industrial and other organizations, and by many eminent authorities on the public health, the House of Representatives is now generally expected to follow the example of the Senate, and give this measure a place on the statute book at this session of Congress.

It provides for the organization in the Department of Agriculture of a section to be known as the food section of the chemical divison to analyze samples of food or drugs offered for sale in any State or Territory other than where manufactured, or in any foreign country, provided they be in original and unbroken packages.

It prohibits the introduction of food or drugs adulterated or misbranded, under a penalty not exceeding $200 for the first offence, and not exceeding $300 for each subsequent offence, and by imprisonment for one year.

Every person who manufactures for shipment from any State or Territory any drug or article of food is required to furnish samples to agents of the Secretary of Agriculture. A refusal to do so is punishable by a fine, not exceeding $100, and not less than $10, or by imprisonment from 30 to 100 days, or both.

The manufacture or sale (knowingly) of adulterated, impure or misbranded articles of food shall, in addition to those penalties, be adjudged to pay all the necessary costs and expenses of inspection and analysis.

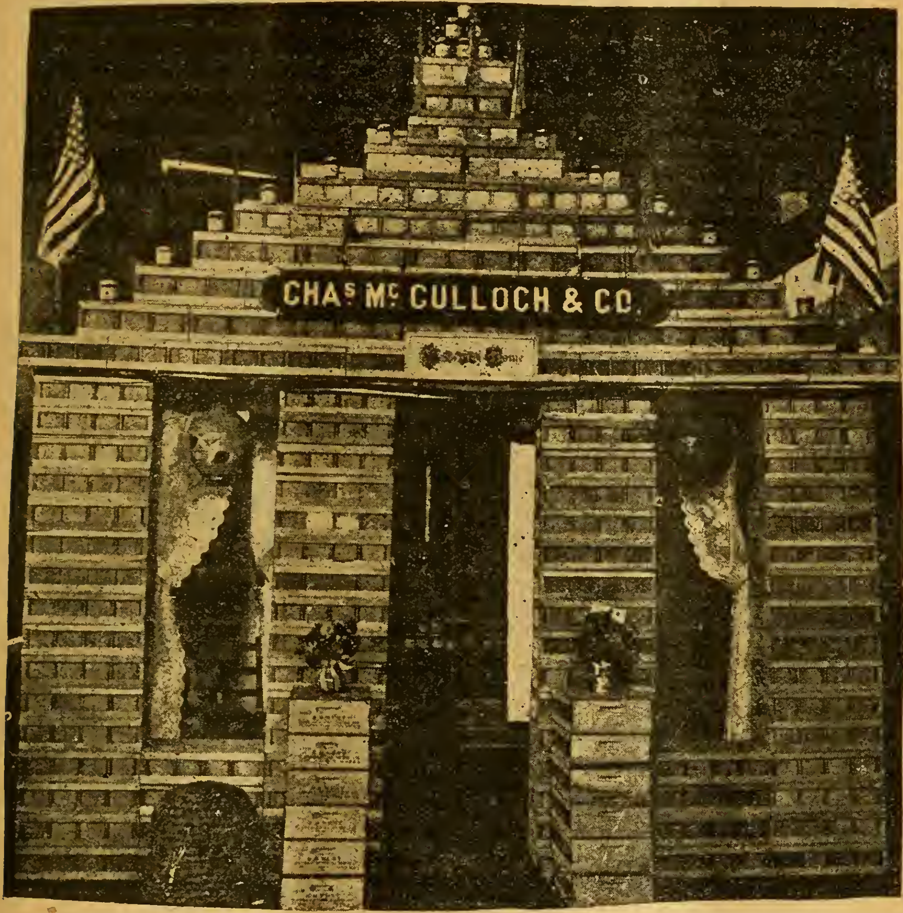
A Lie travels faster than the truth, and we are often inclined to think that people will swallow a lie quicker than the truth. Consequently it may take years before the public can thoroughly understand that there is no truth in the assertion that "artificial comb can be made by machinery, filled with glucose and capped by machinery;" yet our readers will now and then read or hear the "lie" reiterated. Each and every one who knows the facts in regard to the slander, should do all he can to enlighten the public mind.—*Western Plowman.*

Samples of one-piece sections are received from the Wauzeka Manufacturing Co., of Wisconsin. They have sent us the first lot made with their "new polisher," and the workmanship is quite satisfactory. It makes no difference how cross-grained the wood may be, the sections come out perfectly smooth.

We Learn from A. J. King that the main honey flows in Cuba occur in January and February, and is secreted by the campeachy (logwood) and campanea, or bell-flower.

The Result of the work of the bees, in the economy of nature, is just so much clear gain to the human race.

Attractive Exhibits of honey at Fairs are of the utmost importance. They will arrest the attention of the crowds attending such places, educate them concerning the honey crop, and its commercial importance, and impress them with the idea that it will be worth their while to be informed about the industry. The following engraving shows a log-house made of crates of comb-honey, which was illustrated and described thus in *Gleanings:*



A Log-House Honey-Exhibit.

The engraving shows a display of honey made by Chas. McCulloch & Co., dealers in honey, at the State Fair, held in Albany, N. Y., last Fall. It was in the form of a house 12x12, and 15 feet high. It took over 400 cases of honey, weighing in all over 4 tons, to build it.

The room inside was handsomely furnished with easy chairs, center table, mirror, rugs, and pretty lace curtains at the windows. Over the door was the very appropriate motto, "Home, Sweet Home."

It was the headquarters for all honey-producers visiting the Fair, and they were made to feel at home by Messrs. McCulloch & Co., who went to the trouble and expense of the display for the benefit of their consignors, taking orders for a large amount of the honey during the progress of the Fair.

A "Find" of Beeswax.—We have received from H. C. Farnum, of Aristotle, N. Y., the following concerning a mine of beeswax on the Californian coast. We know nothing of it, but perhaps some of our correspondents on that coast will be able to give us some light on the subject. We are inclined to think it a *fishy* yarn, but there may be some foundation for it:

> No one has ever been able to give an authentic account of how such enormous quantities of beeswax came to be deposited on the beach near Nehalem, Calif. Specimens are found along the beach in various places, but it is most plentiful near the mouth of the Nehalem.
>
> As the sea shifts the bars, pieces of it are washed ashore, and large quantities are found by plowing in some of the low land near the beach. There are spots where the sea has never reached in the memory of the oldest settlers, and which are covered with a good sized growth of spruce, where deposits of the wax may be found by digging.
>
> Specimens of the wax may be found at the house of any settler on the beach, and to all appearances it is genuine beeswax. Several tons have been unearthed, and one man shipped a large amount to San Francisco once, for which he received $500.
>
> In quality it is as good as any in the market, and has retained its familiar odor through all its rough usage and age. It is supposed by some, and so stated, that it came from the wreck of a Spanish vessel over a century ago. Others say it came from a wrecked Chinese bunk.
>
> These traditions in regard to the wrecks came from the Indians, and are not reliable. It is possible that this beeswax is really a "Lost Treasure" which the people are digging for on the Nehalem.

If there is anything in the latter part of the story, the product is probably what is known as "Chinese wax" (*ceryl cerotate*), which is a substance bearing a physical resemblance to refined beeswax, and is also known as "white wax."

It has hitherto been supposed to be the inspissated exudation of certain species of trees in China; but an investigation conducted on behalf of the British Government by Alexander Hosie, 1990, shows it to be a secretion of an insect, *Coccus pe-la*.

According to the report made by Mr. Hosie to the science department of his Government, the Chien-Chang valley in the Chinese province of Sze-chuen is the principal breeding place of the *Coccus pe-la.*

These insects appear first in March in great numbers; they are of almost microscopic size, and are inclosed in pea-shaped excrescences called "scales," on the branches of a species of privet, the *Ligustrum lucidum.*

What the further history of the insects would be, if left to themselves, we have no means of knowing; but for commercial production they are transported, toward the end of April, before leaving the "scales," to the district of Chiating, 200 miles from their native valley.

These insects and the wax product was fully described on page 775 of the BEE JOURNAL for June 11, 1891.

The value of the wax is due to its high melting point, 160°, Fahr., as opposed to 95°, Fahr., for tallow. The introduction of kerosene has much reduced the sale and production of this wax in China.

The Editor left on his vacation for rest on Tuesday, April 5. The many letters from old-time friends and co-laborers are fully appreciated, showing that he has a deep hold upon the friendship and esteem of the bee-keeping fraternity. As a complete rest of mind and body is very essential at this time, it is not probable that the BEE JOURNAL will contain any articles from his pen until his return, with the exception, perhaps, of some that were prepared before leaving, for use as may be required.

It is earnestly hoped and expected that his "outing" for rest and recuperation, may result in the Editor's complete restoration in health, so that upon his return, he may, with renewed energies, take up anew the work which he has been, for nearly a score of years, so faithfully and unselfishly performing.

The World's Fair Puzzle.

This is a puzzle, not only in name,
But a puzzle to puzzle the best known to fame;
Like Columbus' ideas—hard to see through—
But after you've solved it, 'tis easy to do.

Here Columbus from Europe to America is bound;
Like his idea of earth, the puzzle is round.
The voyage is long—the sea is quite rough,
And to say it is easy is only to "bluff."
You may try very often from Europe to sail,
But ere you get over there'll be many a gale.

That the "men" move in cross-groves all looks very plain,
But that does not work it—you must try, try again.
If you think you can solve it, and you'd like to just try,
Why send your subscription this puzzle to buy.
You will find that the money was very well spent,
As the puzzle does puzzle quite as much as was meant.

When all of the family have tried—yet not solved
How from Europe to America Columbus revolved;
When father and mother—yes, sister and brother
All want this new puzzle, why—you buy another!

[Please read page 495.]

Transferring Bees from box-hives will soon be in order. We have many inquiries about it, of which the following is a sample:

I want to transfer 2 colonies of bees from box-hives. When should it be done? How can I do it? My bees gathered pollen on March 25.—STELLA HOUGHAND, Boonville, Ind.

The best time to transfer bees from box-hives to movable-frame hives is just before fruit bloom, when there is but little honey in them. The drumming method, as advised by Mr. James Heddon, is as follows:

After getting the new hives ready, and every frame nicely fitted up with foundation, proceed to the box-hive and give the bees a little smoke; next turn the box-hive upside down, and place an empty box on the top of it, large enough to hold a good sized swarm of bees.

With a stick or hammer, drum on the hive for 15 or 20 minutes, when the greater portion of the bees, including the queen, will be in the upper box. Take off the upper box and dump the bees at the entrance of the new hive, and they will all rush in (the old hive should be removed a short distance away, and the new hive placed where the old one stood).

In a few days the comb foundation in the new hive will all be drawn out, and a good-sized colony of bees will be started. Leave the box-hive where it is for 21 days (generally enough bees remain at home after the others are taken out to take care of the brood).

After 21 days every bee is hatched, including all the queen-cells, and as no laying queen is in the hive, it is entirely destitute of brood. To remove the remaining bees, proceed as before, and then split up the box-hive, and melt or save the combs, whichever you choose.

The Honey-Bee; Its Natural History, Anatomy and Physiology. By T. W. Cowan, editor of the *British Bee Journal*, 72 figures, and 136 illustrations. $1.00. For sale at this office.

The Amateur Bee-Keeper, by J. W. Rouse; 52 pages. Price, 25c. For sale at this office.

Convention Notices.

COLORADO.—The Spring meeting of the Colorado State Bee-Keepers' Association will be held in Golden, Colo., on April 21, 1892.
E. B. PORTER, Pres.
H. KNIGHT, Sec., Littleton, Colo.

ILLINOIS.—The Spring meeting of the Northern Illinois Bee-Keepers' Association will be held at O. Taylor's, at Harlem, Ill., on May 17, 1892. All are cordially invited.
Cherry Valley, Ill. D. A. FULLER, Sec.

TEXAS.—The 14th annual meeting of the Texas State Bee-Keepers' Association will be held at Greenville, Hunt Co., Tex., on Wednesday and Thursday, April 6 and 7, 1892. All interested are invited. A. H. JONES, Sec.
Golden, Wood Co., Tex.

PENNSYLVANIA.—The tenth semi-annual meeting of the Susquehanna Co. Bee-Keepers' Association will be held at Bullard's Hotel in Brooklyn, Pa., on Thursday, May 5, 1892, at 10 a.m. All are cordially invited.
Harford, Pa. H. M. SEELEY, Sec.

OHIO.—The next meeting of the Fayette Co. Bee-Keepers' Association will be held in the City Hall at Washington C. H., Ohio, Wednesday, April 13, 1892, commencing promptly at 10 a.m. The election of officers, in connection with an interesting programme, will be the business of the day. In view of the fact that the Ohio State Bee-Keepers' Association will hold its next annual meeting at Washington C. H., during the winter of 1892-93, we bespeak a good attendance. D. WATERS, Pres.
S. R. MORRIS, Sec., Bloomingburg, O.

Queries and Replies.

Honey-Boards—With or Without Frames

QUERY 813.—Is a sheet of perforated zinc, fitted snugly on the brood-frames, as good an excluder as a frame one?—Wisconsin.

No.—J. P. H. BROWN.

No, sir.—A. B. MASON.

Yes.—J. M. HAMBAUGH.

Yes.—MRS. L. HARRISON.

Not for me.—EUGENE SECOR.

I do not know.—P. H. ELWOOD.

In my opinion, yes.—E. FRANCE.

I believe so.—MRS. J. N. HEATER.

I have not tried either, and do not know.—M. MAHIN.

It will exclude as well, but the other is preferred.—C. C. MILLER.

I prefer a frame one raised a bee-space above, so that it will not be so tightly glued.—A. J. COOK.

Zinc correctly perforated is the best excluder I know anything about.—H. D. CUTTING.

Yes; but not nearly as handy to use; that is to say, if I understand the question rightly.—J. E. POND.

Yes, as effectual as an excluder, but by no means as good in point of convenience.—R. L. TAYLOR.

Yes; but it is less easy to remove when it is glued fast, unless nailed to a board or frame of some kind.—DADANT & SON.

I have always allowed my queens to go where they pleased in the hive, and never used any excluder; consequently I do not know.—MRS. JENNIE ATCHLEY.

I do not like it as well, as the bees glue it so fast, that in removing the zinc it is liable to be kinked and injured.—G. M. DOOLITTLE.

I think not; it would become, with use, bulged and warped, and when glued tight to the frames, it might cause more or less unpleasantness to you and the bees to remove it.—S. I. FREEBORN.

It is as good as an excluder, but is not as good a honey-board, because it will sag so that it cannot be kept where it should be, a bee-space above the frames.—J. A. GREEN.

Yes, it will exclude the queen, but will also exclude the full, practical manipulation of itself? Do not use such a contrivance; have a bee-space both above and below the sheet of zinc.—JAMES HEDDON.

No; for the reason that frames are not so easily handled. The zinc also becomes warped in handling, and the bees will propolize it much more than a wood-zinc board.—C. H. DIBBERN.

They are said to be fully as good, by some excellent authorities. The rows of the perforations should run crosswise of the brood-frames. If the sheets of perforated zinc have a solid unperforated border, there should be no trouble about using them, and they may be so made, readily.—G. L. TINKER.

I think not. When an unframed sheet of perforated zinc is laid flat on top of the frames, at least 4/5 of the perforations will be closed to the bees, by reason of lying flat on the top-bars of the frames. Only such perforations as chance to come over the spaces between the frames will be opened for the bees to pass through; while, if the sheet of zinc is framed or rimmed with wood, a bee-space will intervene between the top-bars of the frames and the sheet of zinc, and the bees will have access to all the perforations. In my locality, in hot weather, the bees need all the perforations that are likely to be in any sheet of zinc, for use in travel, but especially for ventilation.—G. W. DEMAREE.

No. There should be a bee-space on each side of the zinc, or many of the perforations will be useless. "Zinc fitted snugly on the brood-frames" would be fastened to them by propolis, and while forcibly removing the zinc, it will become bent and "kinked," so that it will not lie down flat, and will be useless for the purpose intended.—THE EDITOR.

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Moral Education is one of the topics that has been and is being discussed by the editor of the "Phrenological Journal." The April number contains an important article on this topic, with a great variety of miscellaneous and interesting matter in the line of its specialties. Published at $1.50 a year, or 15 cents a number, by Fowler & Wells Co., 777 Broadway.

Topics of Interest.

Grading of Comb-Homey.

F. WILCOX.

There seems to be a desire for further discussion of the subject of grading honey. I produce from 3,000 to 12,000 pounds of comb-honey yearly, and I have adopted a system of grading that seems to suit my trade. I sell the greater portion of my honey to grocerymen, at a distance, in quantities of from 50 pounds to 500 pounds at a time.

What was graded "No. 1" at the Chicago convention, I call "Fancy," and apply the word "fancy" to white honey only. It seems hardly appropriate to speak of fancy dark honey, because it is the color as much as anything that makes it a fancy article. I produce so small a quantity that will come up to that high standard, that I seldom quote prices on it.

All other white honey, well filled and fastened to the wood so that it will not break loose or become leaky in shipping, I call "No. 1, White." All leaky or poorly-filled sections weighing 12 ounces or more, are graded "No. 2," without regard to color, and sold near home.

Badly travel-stained sections, and those which look dark from having the capping sunk down upon the honey; also those which have absorbed moisture, or look sweaty, are graded as "No. 2." This No. 2 honey that will bear shipping, is sold to certain well-known customers who want the cheapest comb-honey they can get.

"No. 1 Dark Honey" includes all good-looking dark honey, free from propolis, in well-filled sections that will bear shipping safely, and are not badly travel-stained.

Sections that are filled half full, or more, with white honey, and finished with dark, and those in which dark and white are mixed in the same cells, if half or more light, are called "Light" or "Mixed," and sold at a price between white and dark.

All sections are scraped as clean as possible, but no allowance is made for those slightly stained or mildewed, except that they cannot go into the fancy grade.

I ship the most of my honey to the North and West, and never hear any complaint of the grading, and seldom of damage in handling.

I think that the average consumer does not object to honey slightly travel-stained, and it is certainly of as good flavor. The fact that it is left on the hive until it begins to look a little brown, is proof that it is perfectly ripened, and it is generally well sealed. Badly bulging combs can be kept for home use, or given to friends and children visiting the apiary.

If the majority shall think it best to have a grade called "Fancy Dark," I will comply, but it is as desirable to have as few grades as possible. The average bee-keeper cannot well make so many different grades, and the apiarist with few bees will never try to make more than three or four grades.

If a comb has more than three or four cells of pollen, I never offer it for sale. Honey-dew can be fed to the bees in the early Spring for brood-rearing.

Now my grades are: Fancy white (seldom wanted); No. 1, White; Light or Mixed; No. 1, Dark; and No. 2 (of all colors).

If I were to draw upon my imagination, I could furnish a more elaborate system of grading, one that would probably suit dealers better; but this has worked well with me for the last 10 or 12 years.

Mauston, Wis.

Are Italian Bees a Pure Race?

C. J. ROBINSON.

Referring to Query 810, on page 381, "your opinion" is, I infer, to be regarded as "your" knowledge pertaining to the question—"Are the Italians a pure and distinct race of bees," unalloyed with admixture of other so-called races of hive honey-bees?

Our knowledge of hive bees, emanating from the earliest Egyptian hiero glyphics, assures us that all of the different *races* (so-called) of hive bees are from one and the same origin, reproduced from the original progenitors, as all mankind are the reproductions from Adam and Eve, who, according to history, were the progenitors of the human "race."

The ancient Egyptian priests pictured as a hieroglyphic, a queen-bee for an emblem of Royalty. This is evidence that the priests were not ignorant of the ways of the busy bee.

History points us to the one reasonable conclusion, that all hive honey-bees have one and the same organism—more uniformly so, at least in size, than in the human. We know there is slight difference in the traits of all the different species, that is, creatures that have an essential identity of organic structure. These traits have their origin by reason of the external differences, such as climate and circumstances consequent on the difference of the different parts of the globe; hence, there is not any essentially distinct "race of bees"—so all hive bees are *pure* in species.

The difference in color is not strictly a difference in *type*, and as to traits, there is (according to Rev. Mr. Langstroth, Frank Benton, and others competent to properly compare) but slight difference. Then what sensible occasion exists for mooting the questions propounded in the Query?

Richford, N. Y.

[To guard that point, Mr. Robinson should have noticed that we used the word "variety;" and added, "or as some call it—race." The word "variety" is proper, and harmonizes with the views of Mr. Robinson. We used the word "race" to agree with the Query, but it was under protest.—Ed.]

Experience in Using a Bee-Escape.

MARK D. JUDKINS.

On page 373 of the American Bee Journal for Sept. 17, 1891, Mr. J. W. Wilcox described his bee-escape. The idea impressed me as being a good one, so I made one out of common lath. It took me perhaps ten minutes, and I put it on a hive on a cold day—it was so cold that the bees were all quiet, and not a bee flying in the yard.

I put it on late in the afternoon; the next morning I looked in the super, and, to my surprise, every bee had made its escape to the main hive.

The beauty of it is, robbers cannot get in, and when it is put on a hive, the bottom being a solid board, it cuts off the warmth from the body of the hive, and the bees decide that there is something wrong somewhere; as soon as they commence to look around, they see the little window under the bottom of the super, and they all "make for it" pell-mell, and out they go, down the front of the hive into the outside entrance. There is no chance for suffocation, as there is an out-door opening 2 inches long, and ½ inch wide; while with the escape through the top-board in the main hive it takes three or four times as long to clear a super of bees, than it does by the out-door plan. One of my neighbors lost nearly all of a large colony of bees by suffocation—they got the whole thing filled up, and ruined the colony of bees.

The outside of my bee-escape is covered with wire-cloth, to keep the bees in and the robbers out. It is the "boss."

Osakis, Minn.

Experience with Italian and Black Bees.

J. J. LAWRENCE.

I have kept bees for 12 years, and have taken great pains to keep a pure stock of Italians, rearing all queens from a tested Italian. I have had very poor luck in getting queens mated purely.

There are but few bees of any kind kept within three miles of me, and I have kept drone-comb carefully cut out of my own hives, but have averaged only two or three queens purely mated out of ten. I think that Italian drones are sadly deficient in the "get up" necessary to perpetuate their species. The last three years I have paid more attention to the despised blacks.

My bees (from 25 to 50 colonies) are kept on a town lot near the edge of town. I find no difference between the Italians and blacks in regard to temper, defending their hives from robbers, robbing, or keeping out moths. I keep all my colonies strong, using a large hive (18x18x12 inches, and 18 in. high). The storage is at the sides and on top. I use division-boards, queen-excluders, drone-traps, etc.

I have no trouble to get blacks and hybrids at work in the surplus apartments before swarming. I have had a great deal of trouble to get Italians at work in the surplus before and after swarming. They keep every cell in the brood-chamber filled to the exclusion of the queen. I have found Italians working on red clover, and found blacks in the same field at the same business within five minutes.

I keep my colonies from swarming by raising the hives one or two inches from the bottom-boards, and using shade-boards. I usually get 4 or 5 swarms from 20 colonies.

I winter my bees in the cellar, with the temperature at 45° to 53°. I find this too cold for nuclei, and too warm for large colonies. I try to average my colonies as to amount of bees in the hive, and divide for increase. I have read the books of Langstroth, Quinby, Cook, Root, etc., and the AMERICAN BEE JOURNAL for 12 years; and yet I do not know it all, by any means.

I enjoy the way the Italian queen-breeders write of those who speak well of the black bees. They have my sympathy, for I know how hard it is to keep pure stock. The little black or brown bee for me; less work, more honey, more money.

St. Mary's, Ohio.

Some Settled Facts in Apiculture.

M. MILLER.

That the Langstroth frame hive is the hive of the future for comb-honey.

That the Langstroth frame is the standard frame of America—in point of numbers in use.

That the best hive cover we have used so far has been the old flat cover—just a plain board, with a grooved cleat nailed on each end. We will never get a better cover than that—the grooved cleats nailed on the ends prevent the cover from warping.

That the break-joint honey-board is necessary where thin-topped brood-frames are used.

That the queen-excluding honey-board is very necessary on newly-hived swarms, but not necessary in a colony where the brood-nest is established.

That 1⅜-inch spacing of brood-frames is just about as near right as we will get it.

That thick top-bars are all that is claimed of them. But how about that exact spacing? Must we adopt closed-end bars to get the exact spaces? Is not the cure worse than the disease?

That cellar wintering is the best method of wintering bees, all things considered.

That the T-super, and the wide-frame super, are the best, all things considered.

That all hives and supers must have a bee-space at the top, and that bee-space should be 5/16 of an inch.

That all enameled cloth and rags are a nuisance about hives in time of a honey-flow. Here is where the flat hive-cover is best, again.

That an outer case or upper story to protect the supers, when supers are on the hive, is a good thing, but finds few friends among large honey-producers. But upper stories are all right where bees are wintered on the summer stands.

That contraction of the brood-chamber is not practiced as much as it has been heretofore, as contraction has been sometimes overdone.

That Spring protection of bees is a good thing where one has not too many "irons in the fire."

That it is best to leave the bees in the cellar until outside protection is not needed.

Le Claire, Iowa.

Markings of Hybrid Bees.

GEO. F. ROBBINS.

On page 355, Mr. Aten observes that some writers of the AMERICAN BEE JOURNAL claim that a pure bred Italian queen mated with a black drone will produce well-marked Italians. Of course he should have said three-banded bees. He adds: "Of course, this is all guess-work."

I think I can give Mr. Aten some facts which, if they do not convince him that he is mistaken, will at least be hard for him to account for.

In 1883 I purchased 2 colonies of Italian bees. At that time I had 17 colonies of blacks, some of them with a strip or two of yellow. There were no Italians in the neighborhood, although one man had a few that showed some of the Italian markings. Within a radius of two miles there were perhaps 75 to 100 colonies of bees nearly all pure blacks, as I have intimated. I proceeded to rear queens from those two Italians, hoping that I might get that many more queens purely mated. Out of 13 queens thus reared, the progeny of 12 showed, so far as I could tell, *uniformly and distinctly three yellow bands.* The queens reared in turn from them produced bees marked all the way from three-banded bees to pure black, all in one colony. I claim that necessarily the majority of these queens must have been impurely mated. Does it not look so?

I gave the above facts in an article which was published in the *American Apiculturist* of November, 1890. That paper brought me a letter from Mr. Geo. S. Wheeler, of New Ipswich, N. H., in which he stated that his experience had coincided with mine. When he procured his first Italian queen, there was not, so far as he knew, a colony of Italians within 20 miles of him ; yet his queens, reared from that one, all produced three-banded bees, while the next generation were marked as promiscuously as I had noticed in the case of my own. He gave other facts in the same line, which I would give had I not mislaid his letter, and cannot recall them exactly.

To me, the irresistible conclusion to be drawn from these facts is, that a pure-bred Italian queen mated with a black drone will produce three-banded bees, while daughters of such queens thus mated will produce offspring of very promiscuous markings. If this is all "guess-work," will Mr. Aten kindly "guess" something a little more probable to account for the facts, and I will give his "guess" due consideration.

A short time ago I stated my views to a man who had once been a bee-keeper, and he agreed that I was probably right. Had I time, I would cite some well known authorities to the more or less decided support of my theory. While my later experiences do not possess the certainty of my earlier ones, all go to prove circumstantially the same thing.

I would add, that the temper of many of my yellow bees all along, go far to confirm my idea.

Mechanicsburg, Ills.

Bees Locating a Home before Swarming.

L. G. PURVIS.

Reading Mr. Duncan's evidence (page 387) on the bee-scout question, reminds me of a case of bees locating a home, that came under my observation while keeping bees at Hartford, Iowa.

It was in the season of 1878, in swarming time. We had a prime swarm issue on Thursday, and we hived them, but they returned to the parent colony on the following day. Some of our neighbors, living about ¼ of a mile south of town, said they had found a bee-tree in the woods near where they lived. I saw them on Saturday, and they were flying quite strong, and, to a person not observing closely, the cavity would appear to be occupied by a swarm; but, on observing closely, we could see that they were cleaning out, as they would seem to be loaded on leaving the hollow, would go but a little ways, and then return.

On Sunday, at 10 or 11 o'clock, this swarm that had issued on Thursday, and returned again, was in the air, and, without clustering, started off south, but seemed to be circling around and going slowly, and by going in a fast walk we kept up with them. They went direct to our neighbor's supposed bee-tree, and entered without delay.

We got permission to cut the tree on the following Monday, and found two or three small pieces of new comb constructed by the bees while they had occupied the hollow. I have known of several trees being cut for bee-trees while being cleaned out preparatory to occupancy.

I do not believe much in Mr. Demaree's "sound" theory, as I have known empty hives to be occupied by swarms that were located (the hives) in the corner of an old, neglected lot, overgrown with tall weeds and bushes. The hives must have been located by the bees beforehand, as a swarm in passing would not have come near enough to locate them on the "sound" theory.

It seems to me the "sound" theory is untenable, from the fact that a runaway swarm seldom travels through the woods, but nearly always on coming to the woods they rise and pass over.

I do not think that bees always locate a home before going to the woods, but that they sometimes do, I am well satisfied.

St. Joseph, Mo.

Apicultural Difficulties and Prospects.

S. S. BUTTS.

Although I have for years been somewhat interested in the busy bees, reading with a relish whatever I found in books and newspapers on apiculture, yet I could not persuade myself to begin bee-keeping, as the pursuit in this locality seemed environed with so many difficulties. There were no suitable hives or supplies of any kind ; bees deteriorated by ages of abnormal treatment and abuse ; and no skillful, progressive apiarist to go to for counsel or help.

But when the facilities came for getting better hives, better bees, and learning improved methods for the handling of them, I ventured to try bee-keeping in a small way.

I began just in time to have the benefit of a succession of very unfavorable seasons. I became convinced that I must have either better seasons, or better bees, or give up the business. As

I could not regulate the seasons, and as I very much disliked to give up a pursuit that I was becoming very much interested in, I concluded to look for a bee that would not be so easily discouraged and discomfitted as the German bee; one that would brave some adversity, and work right on under discouragements, as long as there was anything to do, making the best of unfavorable seasons.

After learning what I could from bees, papers and books, of the comparative value of the various races and species of bees in this country, I found no difficulty in choosing the Italian. By cross-breeding during the past two years, I now have bees that for size, energy, gentleness and beauty ought to satisfy the most exacting. I shall rear my queens by the Doolittle method, and Italianize the apiaries in this section as far as possible.

We have excellent bee-pasturage in this part of the State, and with better bees, better methods, and improved bee-keepers, the production of honey ought to be a successful and paying business. We want live bee-papers like the AMERICAN BEE JOURNAL circulated among bee-keepers, to let in the light and beget interest and pride in their calling.

Wyalusing, Pa.

Bee-Keeping in Florida.

MRS. L. HARRISON.

I recently visited two apiaries located on St. Andrew's Bay, and both are managed on the "let-alone" principle—you let me alone and I will you. I never saw bees drop down heavier, or carry larger loads of pollen than do these. Almost every place has its plum-trees or thickets, which are now blooming, and the bees are "making hay while the sun shines." I am told by residents here that these plum-trees are of the Chickasaw or Cherokee variety, but the bloom is much smaller than I have seen on those trees at the North, and the leaves have not yet appeared, but the trees are white with bloom.

Bees are also working upon peach blossoms, which are quite large, and the trees very full. The peen-tos have been blooming since October, and have peaches larger than peas. There is also another variety, known as the "Angel," which blossomed in January.

The hives in these apiaries had movable frames, but they are never moved, and if they are queenless, they say the moths killed them. Hives that contain comb, but no bees, are allowed to stand around and breed moths, in lieu of melting the comb into wax. These apiaries that I visited do not belong to natives of Florida, called "Crackers," but to persons who came from the Eastern States.

The surplus honey is secured in large frames in the upper story, and when they are filled it is cut out, and if any is taken to market, tin cans which have done duty in bringing lard from the North are utilized.

The market demand for honey is very small, yet there is not enough produced to supply it, while flowers are wasting their sweetness for lack of bees to gather it.

It matters not where bees are kept, whether in cold or warm climate, if they are of any profit to their owner, they must have intelligent care. A lady here said to the writer that she once kept bees, but the toads and the worms ate them all up. I opine that she was more to blame herself than the toads and worms.

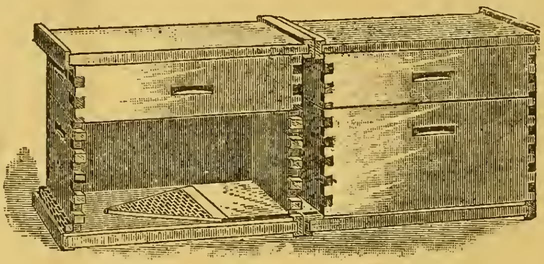
An intelligent boy who lives in the pine woods, said to me a few days since: "The bee-martins are catching our bees. They sit on the limb of a peach tree, and when the bees come to gather honey from the blossoms, pick them up, and I am shooting them." This boy has the attributes that constitute a bee-keeper's care and watchfulness, and he will never blame the toads and worms for destroying his colonies.

I knew of a bee-keeper at the North who lost many colonies of bees during the very cold Winters, and brooded over his losses greatly, and finally arrived at the conclusion that if he could only move his bees to a place where they would not freeze to death, his troubles would be at an end. With this in view he shipped his bees to Southern Florida, and in writing back said that he had to put them on a raft, wade in the water, and swim some of the way, to get them to their destination. "But I do not mind the hard work and trouble I have had, for now I am in Florida," he said.

But his rejoicing was of short duration, for he had located in a malarious district. His wife sickened and died, and with his little ones around him, in the woods far from sympathizing friends, he found that his greatest trouble was not that of bees freezing to death. Then he advertised his bees for sale.

In this warm climate bees have difficulties to encounter as well as at the North. A few days since I noticed some bee-hives, and was on the point of starting to see them, when an acquaintance said: "Oh, you need not go over there to see those hives, for there are no bees in them. There were four months of drouth last Summer, and the bees starved to death. They belonged to the doctor who lives over there, and he said he was not going to feed them; that if they could not make their own living, they might die." A little food would have tided them over until the rains came, and they would have paid it back with more than compound interest.

Wherever you live—in the North, South, East or West—do not let your bees starve for want of a little food. There are times when a penny's worth of sugar would save the life of a valuable colony, for they may die within a few hours of plenty.—*Prairie Farmer.*



Pratt's Self-Hiver.

Automatic Self-Hivers.

HENRY ALLEY.

Since I described the first self-hiver, several enterprising bee-keepers have made an attempt to improve upon my arrangement by all sorts of devices which they claim as an improvement on mine; such claims were founded on theory, as not one of the self-hivers that these friends had "invented," had been tested on a bee-hive.

In a recent issue of *Gleanings*, Mr. E. L. Pratt described a device which he claims will do the work to the satisfaction of all. Well, perhaps it will, but since giving it a little thought, I have discovered some very serious objections to such an arrangement. Mr. Pratt says:

"The hive to receive the swarm is placed in front of the colony expected to swarm. The front ends of both bottom-boards are abutted so as to form a continuous passage from the swarming colony through the new hive. A little block is placed into the open space between the two hives, so that the bees cannot escape from that way."

There, it will be seen that the bees, when they go to and return from the fields, must run the entire length of the new hive to reach their combs, and then must work their bodies down through more or less perforated metal to find the entrance to their brood-nest. Now, is such an arrangement practical? I contend that it is not; and when I gave Mr. Pratt the "cue" to this device, I so expressed myself.

Then there is another equally as serious objection to the Pratt swarmer. Mr. Pratt places a piece of perforated metal at the entrance of the new hive to prevent the queen from going with the bees, little thinking that the same device would detain the drones as well as the queen. Now, suppose there is an out-apiary in which the Pratt swarmer is used, and which the owner visits but once a week? One-half, if not all the colonies in the yard on which the swarmer is used would be dead, as the drones in hives (where the drones are abundant), would so clog the entrance that no bees could get in or out, consequently the colony would be smothered.

If Mr. Pratt's swarmer will work as he claims, I know of a much better and simpler method of hiving swarms automatically by the same arrangement of the hives as Mr. P. recommends. All the inside arrangement of the perforated metal that Mr. P. uses, can be left out, so that the passage-way to the colony in the rear hive will be entirely free of any obstruction. Place a drone and queen trap at the entrance of the new hive, and when a swarm issues the queen will be trapped.

Now, all who use the "trap" know about the arrangement provided for the escape of the queen when the apiarist is absent, or a swarm is not desired. All that is needed to make the drone and queen-trap a perfect swarmer, is to provide an easy escape for the queen when a swarm issues. To do this, and at the same time prevent the drones from returning to the hive, the trap should be provided with Dr. Tinker's perforated metal, which has openings sufficiently large to let a queen through, but not a drone.

It will be seen that this is a great advantage over the arrangement of the Pratt swarmer, as all the drones will be trapped, thus removing all danger of the colony being destroyed by suffocation. This arrangement will work in an out-apiary, to the satisfaction of any bee-keeper.

I guarantee that it will hive as many swarms as any automatic swarmer devised—in fact, I have no doubt about it hiving every one that issues.

When a swarm has been hived by this arrangement, it should be at once removed to another stand.

During the past two years I have found a pretty good way to work the drone-trap when a swarm issues. The old directions were to remove the old hive and put the new one in its place to hive the new swarm. The better way is, to place the new hive at the side of the old one, and when the queen is seen in the trap, at once place it at the entrance of the new hive, when the returning bees will hive themselves. If there is room at the side of the parent colony for the new swarm, it can remain there as well as in any other location in the apiary.

Wenham, Mass.

The Wintering of Bees.

C. THEILMANN.

This is one of the most important questions in bee-keeping in our northern climate. Many different ways have been tried and practiced, and much has been written on how to winter bees successfully. On the whole, they are wintered more successfully of late years than they were 10 or 15 years ago. This shows that our industry is progressing, though there is still more to be learned, as some bee-keepers occasionally meet with heavy losses, and then ask as to the cause? The answer that I would give is, that they have omitted doing a number of little things, which, together, will bring about the desired results; besides, nearly every bee-keeper has a hobby of his own. This I know by experience, as I used to have more than one, and, as a rule, bee-keepers are much alike in this respect.

Sometimes it makes me smile when I read of some new (?) discoveries; and, again, a feeling of sadness comes over me, when it reminds me how I punished and manipulated my bees to death, with some of these hobbies. I once killed 70 colonies, when I thought I was doing my best for them.

I have tried to winter my bees in nearly all the different ways and methods we read of now-a-days, such as: Out-door non-protection; protection with outer cases filled with chaff or leaves; holes through the combs; sticks over the brood-frames; contraction of the brood-nest with dummies; once I left the brood-nest bare, not having anything over the frames at all, and the bees wintered excellently. How is that for non-upward ventilation? Three Winters I had my bees in a double-wall, filled in with sawdust. It was a frame building. It was burned by heating artificially, and I lost 87 colonies.

All of the foregoing methods gave me a great deal of work, expense and loss, also much dissatisfaction; and now I have abandoned them all, and for the past six years I have wintered my bees under ground. I have come to the conclusion, after one trial, that an underground repository, rightly made, is the safest place to winter bees in Minnesota.

My losses have been very light since I winter my bees under ground. It also saves me a great deal of time and tinkering, compared with other methods. All I have to do, the latter part of September, or forepart of October, is to see that each colony has from 25 to 35 pounds of stores, and no more is done to them until they are put into the cellar. The cap of each hive is left on the summer stand, with the same number on it, as has the brood department, so as to know its respective place, when put on in the Spring.

Some bee-keepers write that it does not make any difference where the colonies are put in the spring. This is a big mistake, and has ruined many colonies of bees, as they have not forgotten their location, while in confinement.

The cellar should be constructed so that no frost can enter. They should be roomy, and the air should be kept pure, with a temperature of 40° to 45° above zero.

It is seldom that I water my bees in their winter quarters, but sometimes towards Spring they seem to become thirsty and uneasy. I then give them a little ice or snow in front of she hive-entrances, which seems to quiet them.

For the past eight years I have abandoned the cushions over the brood-nest, and have not used anything but the honey-board, which I find far better, cheaper, and makes less work than the wet and moldy cushions.

There are many more things which really belong to wintering bees, but I would say that we must work our bees, in Summer and Autumn, so that they will be ready and in proper condition when the honey season closes; herein lies the great secret of success in wintering bees.

Properly speaking, to separate "wintering" bees from "summering" them, to say the least, is a misnomer, and would be like dividing a man into "body" and "spirit;" though if one of them suffers in any wise, the other is affected thereby.

It is also like grape culture; we must select and properly prepare the young vines to be prepared for next year's crop, while, in the meantime, we are raising this year's crop of grapes. So with bees, the colonies must be properly worked and prepared in the Summer, for the best results in wintering them.

The best worker brood-combs should always be put in the center of the brood-nest; that, with a good prolific queen, will leave the colony strong or populous for Winter, and such colony, as a rule, will always have its stores in the right position, around and above them (if not spoiled and racked by their keeper) when Winter sets in. They are also prepared for the early Spring, after successful wintering, and can be let alone, if they have food enough, until warmer weather sets in.

I put my bees into the cellar the first cold snap we get, which is quite regular here from Nov. 10 to the 14th. This has not failed the past ten years.

The time to put them out in the Spring, is not so regular, and good judgment should be exercised. We should be very careful not to put them out too early, as that has ruined many colonies. It should be warm enough for them to fly freely—any degree under 56° above zero in the shade will be destructive; at 60° in the shade there is no danger.

As a rule here, the weather is warm enough to put out bees from April 1 to the 10th.

Many more things of less importance could be said, and other methods described, but I have not tried them, nor have I any desire to do so, as I am willing to let good enough alone. Of late years my bees have wintered almost to perfection. I have lost only one colony in the past three Winters, and have wintered from 145 to 280 colonies each Winter.—*Read at the Minnesota State Convention.*

Theilmanton, Minn.

◆

Honey Crop Predictions.

SAM WILSON.

I am somewhat late with my predictions this year, for several reasons. I have not as good a chance this year as I had last, to show that I can tell just what the honey-flow will be, as all my predictions of last year were not published.

I stated last year that throughout the whole Northwest there would be a failure, and that Kentucky would have a good flow; that there would be the best honey-flow in Central New York, between Albany and Oswego, of anywhere in the United States. My predictions were made in regard to linden (or basswood) and white clover.

There is one thing to remember, and that is the *cause* of failure of the linden and white clover. It is long before warm weather, and nothing can change the result; but on the other hand it is different, as bad weather may prevent the bees from working, or dry and hot weather may kill the bloom.

When I say you will have a good flow, I mean the flowers will contain nectar—if you have any flowers; and cool nights nor thunder will keep it from being there. Thunder, cool nights, a moist atmosphere, etc., have nothing to do with the secretion of nectar; but when you learn the true cause of flowers failing to secrete nectar, you can tell, in your own location, whether you are to have a failure or not; and you can tell, long enough before hand to get all the supplies in plenty time, or move into a new field, which might be close by.

When you learn the true cause of flowers failing to secrete nectar, you can know when all other flowers are to fail, as well as linden and white clover. There are only two natural causes that prevent flowers from secreting nectar, and I will prove that I know what those are. Any reasonable mind would know that I could not have told what I did last year, had I not known these causes.

If white clover and linden bloom, and the weather will permit the bees to-

work, the coming Summer will be far better for honey than was last Summer. The Eastern and Western States will produce a fair crop of honey this year.
Cosby, Tenn.

CONVENTION DIRECTORY.

Time and place of meeting.

1892.
Apr. 13.—Fayette Co., at Washington C. H., O.
S. R. Morris, Sec., Bloomingsburg, Ohio.

Apr. 21.—Colorado State, at Golden, Colo.
H. Knight, Sec., Littleton, Colo.

May 5.—Susquehanna Co., at Brooklyn, Pa.
H. M. Seeley, Sec., Harford, Pa.

May 17.—Northern Illinois, at Harlem, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

May 28.—Haldimand, at Nelles' Corners, Ont.
E. C. Campbell, Sec. Cayuga, Ont.

☞ **In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—The Editor.**

North American Bee-Keepers' Association

President—Eugene Secor..Forest City, Iowa.
Secretary—W. Z. Hutchinson....Flint, Mich.

National Bee-Keepers' Union.

President—James Heddon ..Dowagiac, Mich.
Sec'y and Manager—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Bees in Excellent Condition.

For nearly two days I have felt better than I have before for nearly 14 months. It was glorious weather yesterday, and also to-day. I took out some of my bees yesterday afternoon. The temperature was up to 68°, and I had only put out 6 colonies, taking about 5 minutes to each, when it had fallen to 53°. To-day I have put out the balance. My loss is between 4 and 5 per cent.; the bees died of starvation. Some of the colonies were badly diseased, but they are having a splendid frolic to-day. Those put out yesterday are carrying in pollen. I expected to lose heavily owing to poor honey, but am happily disappointed, all seeming to be in good condition.

A. B. Mason.
Auburndale, O., April 1, 1892.

Smothered Bees—Rheumatism.

Bees are in good condition, with hives full of honey. I lost 5 colonies by smothering, during a sleet while I had *La Grippe*. I was down three weeks with it. Each colony that smothered had from 40 to 60 pounds of honey. The first work they did this Spring was the second week in March, about 20 days earlier than for the last two years, but we have had some severe winter since that, which stopped their work. I winter my bees on the summer stands.

I would like to know how to prepare and take the medicine spoken of on yage 415, by Mr. A. Webster, of Painsville, O. There is lots of rheumatism in this part of the country. Will Mr. W. please explain, for the benefit of the afflicted?

C. A. Spencer.
Farmersville, Mo., March 29, 1892.

No Loss in Wintering—White Clover.

My 26 colonies of bees have wintered without loss. The prospect for white clover this season is very good. I think that all bee-keepers should join the Bee-Keepers' Union.

Geo. W. Morris.
Cornishville, Ky., March 29, 1892.

Bee-Diarrhea.

1. What are the symptoms of bee-diarrhea? 2. What is the remedy for it?

Herbert Van Vliet.
East Castle Rock, Minn.

[Bee-diarrhea is caused by bad food, or cold weather and an insufficient cluster of bees. When the entrances to the hives are spotted with a brownish-yellow bad-smelling excrement, you may know that the bees have the so-called diarrhea. But a cleansing flight with pleasant weather will generally cause the disease to disappear.—Ed.]

Keeping Bees in Florida.

I have been greatly interested in the articles about Florida, as they have appeared in the American Bee Journal. I have lived here, off and on, for the past ten years. This is not a honey location, although bees do quite well here. Whenever I return to the old home among the pine trees and orange groves, I always re-purchase the same old apiary, which has never increased to more than 4 colonies, or diminished to less than one. Bees have been on the wing nearly every day all Winter, bringing in honey and pollen sufficient to keep up brood-rearing. The honey-flow began in February, on the wild plum and orange bloom, and is now in full blast on orange bloom. I have had lots of practice this Winter, considering the amount of bees, but as far as dollars and cents are concerned, it is not so interesting. As I shall not sell my bees this time, all I can take away is a "beginner's experience" in progressive bee-culture; and not getting my supplies in time, has given me an extra chance to practice making hives, frames, and putting in starters of old comb. I shall start for my northern home in Hillsboro, N. H., the last of the month.

EDGAR B. WHIPPLE.

Grassmere, Fla., March 23, 1892.

Early Pollen.

My bees were gathering pollen on the 25th of March. That is quite early for this latitude. STELLA HOUGHAND.

Boonville, Ind., March 26, 1892.

Changeable Weather.

We have had a few days of Spring weather, when the bees had very fine times enjoying the sunshine; but yesterday it snowed again, making the best Winter month in several years. Last Friday I examined the bees, and they were all in first-class condition except three. One was queenless, and the other two were dead. The latter were in good condition in the Fall, and had plenty of good honey yet remaining in the hives. JOSEPH EHRET.

Trenton, N. J., March 28, 1892.

Putting Bees Out too Early.

Bees seem to have wintered very poorly here so far. I have spoken to a number of bee-men, and most of them have lost badly, but do not know just how the best of their stock will come out. A number of bee-keepers have put their bees out. We had a couple of nice days that would make almost anybody carry their bees out; but those that were kept in fared best on account of the cold weather that we have had the past two weeks. I shall not put mine out until I am pretty sure of good weather—on or about April 5 or 10 is early enough. The March winds that we have had are too much for the bees, after being in a warm cellar for three or four months. Keep your bees out as late in the Fall as is safe, and do not be in too big a hurry to get them out in the Spring, for their is nothing for them to gather—what little they do work is for nothing. S. HOLLOW.

Denison, Iowa, March 21, 1892.

Bees Carried in Flour.

I see by the papers this morning that you had another storm on Sunday, such as the West only can have. It was a fine day here, and the bees carried in flour all day. HENRY ALLEY.

Wenham, Mass., March 28, 1992.

Things to Remember.

I am afraid that three honorary members of the bee-fraternity are fixing to lose sleep over the cost of the production of honey. Now, brothers, listen to a sister just this once, and remember the loss of too much sleep tends to desroy our best thoughts; also that those three "head-lights" should be kept brightly burning, for by them we all see better. Some things to be remembered: 1. That adulterated honey, seldom, if ever, bears the name of the producer. 2. That it is seldom the bees that fail, but the "beeist," instead. 3. That all honey has more or less pollen in it. 4. That we had the coldest spell ever known in March, in Texas, a few days ago.

JENNIE ATCHLEY.

Floyd, Texas, March 24, 1892.

Wavelets of News.

Prevention of Robbing.

Keep strong colonies of Italian bees, have but one entrance to a hive, and do not allow bits of comb containing honey to lie around, where the bees have access to it, or to get at sweets of any kind, at a time when honey is not to be gathered from the flowers, and you are not apt to be bothered by robbers.

A strong colony of Italians will generally meet the robbers at the door, and give them to understand that there is no admittance.

However, if the robbers have possession, and are running over the guards at the entrance, I would close the entrance entirely.

Should the weather be warm, some means for ventilating the hive must be provided, however, or there is danger of smothering the colony.

Towards night open the entrance, to allow the the robbers that have been closed in to escape and return home. The next morning allow them only enough room at the entrance so that one or two bees can pass in at a time.

If the colony cannot or will not defend itself against robbers, I would not consider them worth bothering with.

If this does not effect a cure, close them up for three days; by that time the robbers will likely have forgotten about robbing that hive.

Another plan is to cover the hive entirely over with a sheet or mosquito-bar until the robbers cease pestering; and when you remove the same, contract the entrance as stated above. This gives the guards at the entrance a better chance to hold the fort against intruders.—S. E. MILLER, in *Field, Farm and Stockman.*

Bees in Sierra County, Calif.

The honey crop in this section, last season, was a good one. My health has been poor, and the bees did not receive the attention that they should have had, but I secured about 50 pounds per colony, all first-class comb-honey.—G. W. COVER, in the *Calif. Orchard and Farm.*

Keeping Time to the Music of Progress

Are we advancing in the knowledge and practices of apiculture? Undoubtedly we are along many lines. Any one who is familiar with the business forty years ago, and knows what the practice of the best apiarists of to-day is, can but admit that bee-keeping is not behind other pursuits in the onward march of improved methods. There are to-day more brains and more capital employed in the business of bee-keeping than ever before, since history recorded the doings of mankind.—EUGENE SECOR, in the *Farmer and Breeder.*

Ideal Location for an Apiary.

A friend tells me that he once found the ideal bee location in Nevada. The mountains climbed heavenward, and in consequence there was an almost continual bloom, for when the valleys were in bloom, the mountains were crowned with a mantle of snow; as the season advanced the snow receded, and the bloom ascended. The same conditions can be secured in almost every part of this State, by wintering at an elevation of 200 feet, and staying there until the best part of the bloom is gone, move the bees up to an altitude of 2,000 feet, then to one of 4,000 feet, later 6,000 feet, returning in the Fall to the Winter section of 2,000 feet altitude; by thus moving with the seasons the bees would be kept in a section of continual bloom; and wintered in a mild section where they would consume almost none of their stores.—E. W. SCHAEFFLE, in *Orchard and Farm.*

Queerest of Races.

A pigeon fancier in Hamme, in Westphalia, made a wager that a dozen bees, liberated three miles from their hives, would reach it in better time than a dozen pigeons would reach their cot from the same distance. The competitors were given wing at Rhynhern, a village nearly a league from Hamme, and the first bee finished a quarter of a minute in advance of the first pigeon, three other bees reached the goal before the second pigeon, the main body of both detachments finishing almost simultaneously an instant or two later, says the "Cornhill Magazine." The bees, too, may be said to have been handicapped in the race, having been rolled in flour before starting for the purpose of identification.—*Exchange.*

Absconding Swarms.

Cases are rare where swarms issue and depart before clustering. If they have come out, and returned three or four times, the last time they may go off without clustering. It seems to be nature's way for them to have a general round up in the open air, and then settle into a compact cluster, so that their owner can take care of them. Swarms have been known to remain clustered for several days during cold rain-storms, but it is the safest way to hive them, when they have fairly quieted down. Bees get very warm during the excitement of swarming, and should the day be very hot, with the sun shining directly on the cluster, they will not be apt to remain very long.—MRS. L. HARRISON, in the *Prairie Farmer.*

"One of the best hygienic habits, and also the hardest to acquire, is to keep the mouth shut."

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OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

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☞ The date on the wrapper-label of this paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to pay for another year.

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For	50 colonies (120 pages)	$1 00
"	100 colonies (220 pages)	1 25
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☞ As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.

YOU NEED an Apiary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for $1.25; or for 200 colonies for $1.50. *Order one now.*

Supply Dealers desiring to sell our book, "Bees and Honey," should write for terms.

We Club the American Bee Journal and the Illustrated Home Journal, one year for $1.35. Both of these and Gleanings in Bee Culture, for one year for $2.15.

If You Have any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time.

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

When talking about Bees to your friend or neighbor, you will oblige us by commending the BEE JOURNAL to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the Convention Hand-Book by mail, postpaid. It sells at 50 cents.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

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The American Bee Journal	$1 00	
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Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

Winter Problem in bee-keeping; by G. R. Pierce, of Iowa, who has had 25 years' experience in bee-keeping, and for the past 5 years has devoted all his time and energies to the pursuit. Price, 50 cents. For sale at this office.

A Nice Pocket Dictionary will be given as a premium for only **one new** subscriber to this JOURNAL, with $1.00. It is a splendid little Dictionary—just right for the pocket. Price, **25 cents.**

The latest edition of "Bees and Honey" is received. It is a gem in literature, and I consider it the finest work on the subject extant. The portraits are alone worth the money. The magnificent engravings are the wonder of the old-time bee-keeper.—S. J. Youngman, Lakeview, Mich.

No. 5.—By accident, some new subscribers, in the latter part of January, received two copies of No. 5 of the BEE JOURNAL for Jan. 29, 1892. If they will return that extra copy to this office, we will mail them any 10-cent pamphlet they may select, to pay them for their trouble. We have also asked for the return of a few copies of No. 9, but have received sufficient of that number.

If You Want to know how Queens are fertilized in upper stories, while an old Queen is laying below—how to *safely introduce* Queens at any time when bees can fly—all about different bees, shipping Queens, forming nuclei, multiplying or uniting colonies, etc.—send us $1.00 for "Doolittle's Queeu-Rearing;" 170 pages; bound in cloth, and as interesting as a story.

Busy Bees, and How to Manage Them, by W. S. Pouder. Price 10 cents. For sale at this office.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

FOR SALE OR EXCHANGE—Italian Bees and Queens. Address, OTTO KLEINOW,
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WANTED—To sell 45 colonies of Italian Bees. What is offered for them, in part or the whole? JOHN F. NICE, 329 Maynard St., Williamsport, Pa. 15A1t

WANTED—To sell 25 Colonies Italian Bees in 2-story 10-frame Improved L. Hives with T supers, combs built from foundation. Queens of Doolittle's and Alley's stock.
11D4t E. T. JORDAN, Harmony, Ind

FOR SALE—100 closed-end, standing-frame, double-wall Hives, new, nailed up, painted. Set of sections & cases included, $3.00 each. A great bargain. Order at once. One Novice Honey-Extractor. Send stamp for particulars.
S. A. FISHER, 21 Pemberton Square,
15D4t Boston, Mass.☐

HONEY AND BEESWAX MARKET.

CHICAGO, Apr. 2.—Fancy white comb selling at 16c.; other grades 10@14c. Extracted slow demand, 6½@7½c. Beeswax, 26c.
S. T. FISH & CO., 189 S. Water St.

NEW YORK, Apr. 2.—Little demand, sufficient supply. We quote: Fancy white 1-lbs., 13@14c.; off grades, 11c.; buckwheat, 9c.—Extracted, California, white clover and basswood, 7@7½c.; Southern, 65@70c. per gallon. Beeswax, very scarce at 28@29c.
HILDRETH BROS. & SEGELKEN,
28-30 West Broadway.

KANSAS CITY, Mo., Apr. 2.—Demand very slow, supply good. White 1-lbs., 14@15c.; dark, 8@12c. Extracted, white, 7c.; amber, 6@6½c.; dark, 5c. Beeswax, demand good, supply very light; 23@26c. per lb.
CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI. Apr. 2.—Demand is fair for extracted honey at 5@8c. Fair demand and good supply of comb honey at 13@16c. for best white.

Beeswax is in good demand, at 23@25c for good to choice yellow.
C. F. MUTH & SON,
Cor. Freeman & Central Aves.

NEW YORK, Apr. 2.—Demand for honey is very light and supply more than demand. For fair comb, 9@11c. Fancy 1-lbs., 12@13c.; 2-lbs., 12c.; buckwheat, 7@8c. Extracted, clover, 7c.; buckwheat, 6@6½c. Beeswax—Demand moderate, supply enough to meet it; 27@29c. per lb.
CHAS. ISRAEL & BROS., 110 Hudson St.

KANSAS CITY, Mo., Apr. 2—Demand poor, supply of comb honey large. Fancy 1-lbs., 14@15c.; dark, 8@9c. Extracted, white, 7 cents; dark, 5@6c. No beeswax on the market.
HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, Apr. 2.—The demand for comb-honey is light, supply low; 12@13c. per lb. Extracted, 7@8c. Not much in stock. Beeswax—Demand fair and supply good. 27@28c. Very little of old honey crop will be left when new crop comes forward.
M. H. HUNT, Bell Branch, Mich.

CHICAGO, Apr. 2.—Demand good and supsufficient. We quote: Comb, 14@16c. Extracted, 6@7c. Beeswax, in light supply, and good demand, at 25@27c.
J. A. LAMON, 44-46 S. Water St.

MILWAUKEE, Apr. 2.—Demand very moderate, supply average of all grades but common quality. Best 1-lbs. 15@16c; common, 12@13c. Extracted, white, in barrels, 7c.; in kegs, 7½c; in pails, 7½@8c. Beeswax—demand fair, supply small. Price, 23@28c.
A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO, Apr. 2.—Demand light, supply about exhausted. Comb, 1-lb., 10@12c. Extracted, 5¾@6¾c. Beeswax, in light supply and good demand, at 25@27c.
SCHACHT, LEMCKE & STEINER,
16 Drumm Street.

NEW YORK, Apr. 2.—Demand moderate, and supply reduced, with no more glassed 1-℔ nor paper cartons, 1-℔. We quote: Comb, 1-℔, 14@15c. Extracted—Basswood, 7¼@7½c; buckwheat, 5½@6¼; Mangrove, 68@75c per gal. Good demand for dark extracted honey. Beeswax, in fair supply, with small demand, at 26@27c.
F, G. STROHMEYER & CO., 122 Water St,

CHICAGO, Apr. 2.—Demand is now good supply is not heavy. We quote: Comb, best grades, 15@16c. Extracted, 6@8c. Beeswax, 26@27c. R. A. BURNETT, 161 S. Water St.

BOSTON, Apr. 2.—Demand is fair, supply ample. We quote: 1-℔. fancy white comb, 13@15c; extracted, 6@7c. Beeswax, none in market.
BLAKE & RIPLEY, 57 Chatham St.

MINNEAPOLIS, MINN., Apr. 2.—Demand is moderately good, supply not large though considerable No. 2 in sight. White 1-lbs., 15@16 cts.; dark, 10@14c. Extracted, in large packages, white, 8@9c.; small, 9@10c.; dark, not in so good demand and at lower prices. Beeswax, demand good, supply very light on good quality; 26@30c. per lb.
STEWART & ELLIOTT.

NEW YORK, Apr. 2.—Demand is light, and supply large, except buckwheat comb. We quote: Fancy white comb, 12@14c; buckwheat, 9@11c. Extracted—Clover and basswood in good demand at 6½@7c; buckwheat ind emand at 5@6c. Beeswax in fair demand at 26@28c.
F. I. SAGE & SON, 183 Reade St.

ALBANY, N. Y., Apr. 2.—Demand is very light, supply ample. Do not think that any will be carried over. We quote: 8@12c. per lb. Extracted, 6@8c. Beeswax—Demand is good, supply light; 28@30c. Cold weather helps to work off the over-crop of honey.
H. R. WRIGHT, 326-328 Broadway.

The Convention Hand-Book is very convenient at Bee-Conventions. It contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with Subjects for Discussion. In addition to this, there are about 50 blank pages, to make notes upon, or to write out questions, as they may come to mind. They are nicely bound in cloth, and are of the right size for the pocket. We will present a copy for one new subscription to the BEE JOURNAL (with $1.00 to pay for the same), or 2 subscribers to the HOME JOURNAL may be sent instead of one for the BEE JOURNAL.

Calvert's No. 1 Phenol, mentioned in Cheshire's Pamphlet on pages 16 and 17, as a cure for foul-brood, can be procured at this office at 25 cents per ounce, by express.

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THOMAS G. NEWMAN, EDITOR.
GEO. W. YORK, ASSISTANT EDITOR.

Vol. XXIX. April 14, 1892. No. 16.

Editorial Buzzings.

When amid the apple-bloom
  You hear the bees a-humming,
When from the woodland comes the sound
  Of partridges a-drumming;
When softly cooing turtle-doves
  In couples go a-chumming,
And love-lorn swains the sad guitar
  By moonlight are a-thrumming—
We know by these unfailing signs
  That Summer is a-coming.

◆

Rev. E. T. Abbott is now editing an apiarian department in the *Kansas Farmer*, and he can do it satisfactorily.

◆

The Outlook for a favorable honey season in the Eastern States never was better than it is this Spring, and a large yield is hoped for. So says the *White Mountain Apiarist*.

◆

The Editor already reports some improvement in health since getting away from the busy cares of his editorial work. The BEE JOURNAL readers will no doubt be much pleased to learn this.

Bro. A. I. Root, our co-laborer in apicultural journalism, returned to his home in Medina, O., on March 5, after a several months' trip to the "Golden Gate" of the West, and "Mexican Gulf" of the South. He visited many apiarists during his absence, and created much interest and enthusiasm in the pursuit wherever he came in touch with its representatives. We are glad to note that Bro. Root returns with improved health. No doubt Mrs. Root's continual presence with her husband aided greatly in his reaping the full benefit from such a pleasant and far-reaching journey, in the endeavor to recuperate weary energies and worn health.

◆

March was a cold and disagreeable month. Vegetation was retarded, but this may be "blessing in disguise," for there were no buds to kill by the frosts. The Chief of the Weather Bureau remarks as follows:

> The weather during the past month has been unusually severe, especially in the central valleys and the Southwest, and the continued cold, with more or less frost in the ground, has delayed the farm work.
>
> The slight growth that the crops have made renders it impossible to determine the amount of damage which has resulted from the unfavorable conditions that prevailed.

◆

Mrs. L. Harrison, who has been at St. Andrews' Bay, Fla., for a few months, will soon be once more at her old home in Peoria, Ills. On April 2, she wrote as follows from Florida:

> Please change my address to Peoria, Ills. I shall soon start to visit Wewahitchka—that great bee-country; and then home.

Mrs. Harrison is perhaps the best-known lady bee-keeper in America. Her vigorous apiarian writings are always read with interest, as coming from one who *knows* whereof she writes. Her many friends will be pleased to learn of her safe arrival home, after a vacation in our Sunny Southland.

Alsike or Swedish Clover (*Trifolium hybridum*), besides being a good grazing plant, is a most excellent honey-plant. Emily E. West, on page 512, tells very plainly as to the manner in which it is cultivated so as to reap the best results in hay and for its seed.

Mr. M. M. Baldridge, of St. Charles, Ills., one of our well-known correspondents, has devoted much careful study to this clover, and has this to say concerning this clover:

> The bees have no trouble in finding the honey, as the blossoms are short, and the heads no larger than white clover. The blossoms at first are white, but soon change to a beautiful pink, and emit considerable fragrance. It is a clover which every farmer can and should cultivate, whether he keeps bees or not, as it is superior to the common red for hay or pasture for all kinds of stock.

It is thought by some to be a question whether it pays to plant anything for honey alone, but here is something which, aside from its rich honey-yielding qualities, is profitable both for forage for farm stock and for the value of its seed.

We once lived within a few rods of a ten-acre field of Alsike clover, and during its blossoming the bees fairly roared upon it all the day long. It was almost impossible to walk into the great profusion of blossoms on a warm day, on account of the myriads of bees that were using their little "extractors" so industriously in gathering the diamond drops of nectar.

We commend to the careful perusal of our readers the article referred to above, and trust that those who have not as yet done so, will test the matter for themselves.

◆

A Bee Association has been established in Arizona. The subject of producing honey is receiving marked attention in that territory. Mesquite and alfalfa are the principal plants upon which the bees feed. Both produce clear, crystal like honey of fine flavor.

The Honey Harvest lasts but a few days, or at best only a few weeks, so the wise bee-keeper will be prepared to get honey "while the sun shines." Many an otherwise good apiarist fails to appreciate the value of having everything on hand when the "deluge of honey" comes, that is, if the honey *does* appear in the flowers. All supplies needed in the apiary should be ordered long enough before the time for their use, so that there may be no unnecessary delay on their account when the honey harvest begins. Too often it is the case that these important matters are neglected until too late, and supply dealers and manufacturers are so far behind their orders that the bee-keepers' harvest time is almost ended ere the needful supplies are received. The bright apiarist never "gets caught" that way more than once. Order your supplies early, and be happy.

◆

Abbe Giotto Ulivi, of Campi-Bizencio, Italy, died from the effects of influenza recently. The *British Bee Journal* of March 17, 1892, contained the following concerning his death and characteristics:

> Unfortunately for bee-keeping, although an advanced and thoroughly practical and scientific bee-keeper, the good that he might have done was completely counteracted by his violence of language, and intolerance of those who differed from him. A strong anti-parthenogenesist, he did not hesitate to abuse all those who upheld the Dzierzon theory, and, forgetting that there are two sides to every question, he put down as charlatans all who differed from him, and even the great Huber was called by him "a buffoon!" He was the inventor of what was known as the "Giotto hive and principle," which was tried here about 15 years ago.

◆

In Bee-Keeping the principal requirements are good bees, plentiful pasturage, suitable climate, proximity to a good market, and an energetic bee-keeper who understands how to manage bees, and market the product.

Honey for Gravel.—In the *British Bee Journal* we find the following, taken from a periodical called the *Family Herald*, and published in 1846, giving an experience and directions in the use of honey as a cure for the malady known as "gravel:"

> I was much afflicted with the gravel, and twice in serious danger. I met with a gentleman who had been in my situation, and got rid of this disorder by sweetening his tea with half honey and half sugar. I adopted this remedy, and found it effectual. After being fully clear of my disease, I declined taking honey for about ten years, and in about three months I had a fit of my old complaint. I then renewed the practice of taking honey (as taken from the comb) in my tea, and am now more than threescore, and have not, for the last 27 years, had the slightest symptom of the gravel. I have recommended my prescription to many of my acquaintances, and never knew it to fail.

◆

To Plant for Honey now is investing for the future. The traditional two or three weeks of honey-flow can, with a trifing expenditure, be made to last more than as many months; a succession of bloom can be secured, so that should northerly winds or wet weather prevail for a time, it would not carry dismay to our hopes, and starvation to our bees.

If, as we hope, the present should prove an unparalleled honey season, it will ameliorate the only tenable objection to melilot or sweet clover, which is that it blooms but little or none the first season; and we can well wait until another season for our "sweet" reward from it.

◆

Amber is a term often applied to honey to determine its color, but it is totally unsuitable. It is so indefinite that it covers every color in the rainbow, and from white to black. See Webster's International Dictionary. In order to be definite, use the term "straw color." With it, there is no mistaking what is meant.

Farmers' Bulletin No. 7, just issued by the United States Department of Agriculture, treats of the practice, methods, and effects of spraying fruit trees for insect pests, and fungous diseases. The subject of spraying is presented in the bulletin in a practical manner for the information of the orchardist and fruit-grower, and special attention is given to meeting the objections now being raised in Great Britain and other countries against the use of fruits produced in the United States. The facts brought together show conclusively that the spraying of fruit trees does not injure the fruit or make its use dangerous to consumers.

Next week we will give some extracts from Bulletin No. 7, showing *how* and *when* to spray fruit-trees so as not to prove injurious to bees.

◆

The Honey Industry of Colorado is a very important one. At a meeting held at Greeley, 2,000 colonies were represented, with an average output of 45 pounds. Reports show that the number of colonies are increased each year about 40 per cent., and with proper organization, the proceeds from the sale of honey will run into the thousands.—*Colorado Farmer.*

◆

Ants are a Nuisance in the apiary, and there are various means employed to get rid of the pests. One way is to keep plenty of slacked lime around the hive-stands. As the lime dries and becomes crusty, put on a fresh supply. It is a cheap way to accomplish the desired object.

◆

Alfalfa is a good honey-plant. Mr. E. C. Moore, of Reno, Nevada, says: "Our honey harvest does not commence until the middle of June, as a general thing. I get about 100 pounds per colony, on an average; of course some colonies do a great deal better. Alfalfa is our principal honey-plant.

California Bee-Keepers now have a State Association, whose first reported proceedings were published on page 154. At their meeting of organization on Jan. 7, 1892, a committee composed of Messrs. J. F. McIntyre, John H. Martin and Geo. W. Brodbeck was appointed to inquire into the subject of making a creditable display of Californian apiarian interests at the World's Fair in 1893. Relating to this important matter, the committee have prepared and sent out the following, which should be read by every California apiarist:

TO BEE-KEEPERS OF CALIFORNIA.

On Jan. 7, 1892, according to a call issued by many prominent apiarists, who, realizing the necessity of continued efforts upon the part of the honey producers of the entire State, organized a State Association upon a broad and liberal basis.

Upon the organization of said Association, a committee, consisting of the executive board, was appointed with full power to confer with the Southern California World's Fair Committee, then in session in the Chamber of Commerce at Los Angeles. The committee learned that, while it is reasonable to expect that the honey producers will receive their proportion of the State funds, *if there is any left* after the erection of State buildings, etc., and while working for it, that we should not put too much dependence upon aid from that source.

It is well known that in addition to the above State funds, that all of the counties of the State are empowered to levy an assessment in proportion to their valuation, and as this will be the principal source of procuring funds for the exhibit, we would emphasize the fact that all local organizations should be on the alert to present their claims, and secure the share they are justly entitled to. In the absence of a local organization, the leading honey producers should take it upon themselves to urge their claims.

That there will be an exhibit of the products of the apiary under the auspices of the State, should lead the bee-keepers and all interested in California apiculture, to bestir themselves, and now begin to plan for their contribution for the coming exhibition. The exhibits must be in place in April, 1893.

As to what action different States may take in preparing or getting their exhibits in shape, or what action California may take, it is too early to state. But all who intend to produce anything for exhibition, should put themselves in communication with the State Association, and information will be given as plans are developed.

In relation to the exhibit, strenuous efforts will be made to secure ample room for what should be expected from a State so widely known as California.

There should be as many distinctive qualities of California honey as possible from various portions of the State.

While the main exhibit should be in practical, salable shape, there should be some novelties in the shape of production, peculiarly distinctive of California. The same might be said of beeswax and foundation. Pressed flowers of all the different honey-flora could be prepared by the youthful members of the fraternity; also enemies of bees, both birds and insects; models of apiaries, photographs of apiaries and scenery, California extractors, etc. Anything distinctive of California, either closely or remotely connected with the apiary will be interesting to Eastern visitors.

The California bee-keeper, while taking a laudable pride in the extent and beauty of the exhibit, should ever have before him the vital fact that this exhibition at the World's Fair is the best opportunity ever offered for the opening up of new and world-wide markets for his products, and he should be prepared to offer more direct and systematic methods of sale.

The California State Association was organized to forward all such laudable plans, and desires to keep in close contact with all local organizations and enterprising apiarists in every portion of the State, and with that end in view, asks for your earnest co-operation.

Every Pound of honey-comb costs the bees about 10 pounds of honey; so if honey sells at 10 cents per pound, then worker-comb or comb-foundation is worth $1.00 per pound. This doubtless is the reason why the manufacture of comb-foundation and its demand have now become so very surprisingly large. Every bee-keeper that uses comb-foundation really about doubles his investment. It pays to keep step with improvements in any industry, and especially is this true of bee-keeping.

Old Times, Friends, and Love.

There are no days like the good old days—
The days when we were youthful !
When human kind were pure of mind,
And speech and deeds were truthful ;
Before a love for sordid gold
Became man's ruling passion,
And before each dame and maid became
Slave to the tyrant fashion !

There are no girls like the good old girls—
Against the world I'd stake 'em !
As buxom and smart and clean of heart
As the Lord knew how to make 'em !
They were rich in spirit and common-sense,
And piety all supportin' ;
They could bake and sew, and had taught school, too,
And they made the likeliest courtin' !

There are no boys like the good old boys—
When we were boys together !
When the grass was sweet to the brown bare feet
That dimpled the laughing heather ;
When the pewee sung to the Summer dawn
Of the bee in the billowy clover,
Or down by the mill the whip-poor-will
Echoed his night song over.

There is no love like the good old love—
The love that mother gave us !
We are old, old men, yet we pine again
For that precious grace—God save us !
So we dream and dream of the good old times,
And our hearts grow tenderer, fonder,
As those dear old dreams bring soothing gleams
Of heaven away off yonder.

—Selected.

Queries and Replies.

Contracting the Brood-Chamber.

Query 814.—Suppose I was working my apiary for comb-honey in a good season, and was using the 10-frame Langstroth brood-chamber without any contraction, how many pounds of surplus, on an average, would I gain per colony by contracting the brood-chamber to 8 frames instead of 10, and all of the colonies being in good condition?—Iowa.

I do not know.—J. M. Hambaugh.

I have had no experience—A. B. Mason.

It is a very difficult question to answer with any certainty.—H. D. Cutting.

So much depends upon season, region, apiarist and bees, that no one can tell. —A. J. Cook.

More or less, according to the amount stored in the extra brood-combs.—G. M. Doolittle.

I have never practiced that kind of contraction, and therefore do not know. —C. H. Dibbern.

If you contracted in good time, I should "guess" you would gain 10 pounds, on the average.—R. L. Taylor.

Much depends, in this question. If there was a very decided honey-flow, I would not contract at all.—J. P. H. Brown.

I am sure you would make a gain, but the per cent. varies so much with different localities and seasons, that I would not try to give it in figures.—James Heddon.

That would depend upon so many other things than the mere size of the hive, that it would be impossible for me to even make a guess without knowing all the conditions.—J. A. Green.

The honey that would naturally have been stored in frames 9 and 10, would go into the surplus, and perhaps more, if the colony needed contraction to force them into the sections.—P. H. Elwood.

There are so many things that enter into the calculation, that no one can answer the question with any certainty. What you would gain in the sections would be more lost in the brood-combs. —M. Mahin.

I do not know. May be you would gain nothing, and may be the honey that would go in two frames or more. You see, a great deal depends upon your management, and other circumstances. —C. C. Miller.

As you state the case, there might be no difference, still I prefer the 8-frame hive. It is as large as I want to carry into the cellar, and will hold honey enough to winter the colony.—Eugene Secor.

I would use the whole 10 frames for brood. More brood, more bees ; more bees, more honey. I believe in big, strong colonies, every time—at least up to the time that the honey-flow commences.—E. France.

That would depend very much upon the *length* of the honey season. In a good season of average duration, the gain of an 8 over a 10 frame hive, in comb-honey, would probably amount to 33 per cent.—MRS. L. HARRISON.

You would gain nothing if the bees were occupying the full brood-chamber. Contraction is not advisable, except when the hive is not fully occupied by the queen at the opening of the crop. We do not practice it in any case.—DADANT & SON.

If your colonies are strong and full of bees, I do not think you would gain anything; but if they were only fairly strong and loth to work in the sections, contraction would undoubtedly cause them to go up-stairs, and all you would get that way would be gain.—S. I. FREEBORN.

I do not think you would gain anything by the contraction, if the colonies are as you say, strong in bees, and in good condition, for I have found that the more room there is right over or around the brood-nest in this locality, the more comb-honey we get; as it seems to be the nature of the bees to store their honey right over and around the brood.—MRS. JENNIE ATCHLEY.

This question soars too highly into the realms of fancy, for me to even attempt to answer. Perhaps there would be no surplus at all, in either case; without regarding the matter of pounds, I do not think any gain at all would be made by reducing the brood-chamber, providing, of course, that the colony was large enough for the whole 10 frames.—J. E. POND.

You would not gain any, but on the contrary would lose. However, it is now admitted, I think, by the great majority of comb-honey producers, that in using the 10-frame Langstroth hive, all swarms should be hived on six brood-frames. Contraction to a smaller space will often result in large quantities of pollen being placed in the sections.—G. L. TINKER.

You might possibly gain as much as the two frames you propose to remove would hold, and at the end of the season have to feed back twice that much. That is about the "size of it." I will take my 10-frame modernized-Langstroth hive, and engage to beat anybody with an 8-frame hive, charging him with weight for weight in winter stores. A section-case for an 8-frame Langstroth holds 7 rows of 4 sections each (28); my 10-frame Langstroth hive takes a case that holds 32 sections. It may look a little out of the general order of things, but a strong colony will fill the large case as quickly as the small one, giving a gain of 4 sections to the case.—G. W. DEMAREE.

The weight of two Langstroth frames would be about 15 pounds, but the bees would consume more honey in rearing two frames of brood than they could store in the two frames. The exact amount could not be given without knowing how long your honey-flow would last. In fact, the length, time and source of your honey-flow would largely determine whether such management would result in profit or loss to you.—MRS. J. N. HEATER.

So much depends upon the locality, methods employed, length of the honey season, and the quantity of the honey-flow, that any answer would be but a "guess." There would probably be a gain, but the quantity would be quite uncertain.—THE EDITOR.

Convention Notices.

COLORADO.—The Spring meeting of the Colorado State Bee-Keepers' Association will be held in Golden, Colo., on April 21, 1892.
E. B. PORTER, Pres.
H. KNIGHT, Sec., Littleton, Colo.

ILLINOIS.—The Spring meeting of the Northern Illinois Bee-Keepers' Association will be held at O. Taylor's, at Harlem, Ill., on May 17, 1892. All are cordially invited.
Cherry Valley, Ill. D. A. FULLER, Sec.

PENNSYLVANIA.—The tenth semi-annual meeting of the Susquehanna Co. Bee-Keepers' Association will be held at Bullard's Hotel in Brooklyn, Pa., on Thursday, May 5, 1892, at 10 a.m. All are cordially invited.
Harford, Pa. H. M. SEELEY, Sec.

The New England Magazine has arranged for the publication of an important series of illustrated articles upon Chicago, the city of the World's Fair. Such a series of articles will find a warm welcome, and wide reading all over the United States, and abroad. Buy it at any news-stand, or send your order to the New England Magazine, 86 Federal Street, Boston. Twenty-five cents a copy.

The Honey-Bee; Its Natural History, Anatomy and Physiology. By T. W. Cowan, editor of the *British Bee Journal*, 72 figures, and 136 illustrations. $1.00. For sale at this office.

Topics of Interest.

"Nature's Way" with Queens.

G. M. DOOLITTLE.

Picking up one of our bee-papers the other day, I saw this item in an article on queen-rearing :

"In a week or so the queens will be mated and laying. By this time, other colonies will begin to swarm ; when one swarms, hive the swarm on a new stand and go to one of the nuclei colonies that has a laying queen, remove her, and cage her in the hive from which the swarm issued. In 24 hours she will be released and laying. By this method the old colonies are not queenless more than 24 hours at a time. If left to 'nature's way,' they would be at least 15 days without a laying queen ; consequently a loss of 30,000 to 40,000 bees, and hence it is wasteful to allow bees their own habits, as far as bees and increase is concerned."

I think that such teaching as this is fallacious, and I will try to tell the readers of the AMERICAN BEE JOURNAL why I think so, and why it must be so in all localities which are similar to that of mine.

With me, white clover yields only honey enough to keep the bees breeding nicely, and prepares them so that they mainly swarm from June 20 to July 1. Our honey harvest is from basswood, which blooms from July 10 to 16. After basswood, we have a honey-dearth, wherein bees can do no work save care for their brood and hives, and bees which hatch out at the commencement of this honey-dearth are of no value, but, on the contrary, become consumers.

On an average, it takes 21 days from the time the egg is laid, to the perfect bee, ready to emerge from the cell. Then, if the colony is in a normal condition, this bee does not commence labor in the field until 16 days old ; hence, the eggs for the honey-gathering bees must be deposited in the cell 37 days before the honey harvest ends, or else they are of no value as honey-producers, even though they may help at comb-building, etc., a few days previous to this age.

As the basswood is all gone before the eggs of this introduced queen become honey-producing bees, and as the larger part of them die of old age before the buckwheat and Fall flowers bloom, it will be seen that such teaching is a mistake for such a locality as this.

By letting each colony rear its own queen, we have 15 days without any larvæ being fed or worthless bees hatching, as the writer above tells us, and thereby we save the expensive feeding of these larvæ, which in turn would become expensive consumers of the honey in the hive. Also, the chances are that when the colony rears its own queen, they will be stocked with a better and more abundant class of bees for Winter, than where a queen was introduced immediately after swarming.

Once more : All who are familiar with natural swarming, know that the bees are comparatively few in numbers in the Spring, and increase by the rapidly increasing and hatching brood produced by the queen, until a swarm is the result. By giving a laying queen to a colony immediately after it has cast a swarm, we bring about the same result (swarming) as before, for we place the bees in the same condition. The only difference is, that, having plenty of brood, they build up more quickly, and are prepared to swarm in a shorter time.

As this second swarming, brought about by giving the laying queen, comes right in our basswood honey harvest, it cuts off the chances for surplus honey, for it is well known that bees having the swarming fever, do little or no work in the sections, and, if allowed to swarm, the object we are seeking after (honey in the sections) is beyond our reach.

To understand this important matter better, let us look at how the same colony would work, had we not given them the laying queen as soon as the swarm issued :

Eight days after the swarm went out, as a rule, the first young queen will have emerged from her cell, when the apiarist should remove all the other queen-cells from the hive, so that after-swarming is entirely prevented. In from eight to ten days more, the young queen is ready to lay, which is about the time the basswood begins to yield honey largely. During this period, between the time the swarm issued and the young queen commences to lay, the bees, not having any brood to nurse for the last half of the time, consume but little honey ; hence, as fast as the young bees emerge from the cells, they are filled with honey ; for bees, not having a laying queen, seldom make much headway building comb in the sections. Thus, when the young queen is ready to lay, she finds every available cell stored with ripened honey.

At this point, the instinct of the bees teaches them that they must have brood, or they will soon cease to exist as a colony, and a general rush is made for the sections, the honey from below is carried above, so as to give the queen room, and, in a week, we have, as a result, the sections nearly filled with honey. I have often had such colony complete from 50 to 60 pounds of honey in the sections in from 10 to 15 days, while those to which I had given a laying queen immediately after swarming, did little else but swarm during the same time, with not a pound section of finished honey on the hive at the end of the honey season.

According to my ideas of bee-keeping, the apiarist should have a thorough knowledge of the location he or she is in, as to its honey-resources, and then secure the largest number of bees possible at the time of the honey-yields, to gather the honey from the flowers while in bloom, having just as few at all other times as is consistent with accomplishing this object.

That the giving of a laying queen, as stated by the correspondent whom I have quoted, tends to produce a large quantity of bees at a season of the year when there is nothing for them to do, is why I oppose his position.

Borodino, N. Y.

Apicultural Notes from Texas.

A. C. ATEN.

We are having very fine weather for bees at present. There are not many honey-producing flowers in bloom, but the bees are very busy getting some honey, and carrying in plenty of pollen. My bees are in splendid condition at present, but next month is our worst month for bees generally, and I am preparing to feed them well, and give them better attention than I have ever given them before. I am full of good intentions, which, I hope, I will have the firmness to carry out.

About the middle of this month we had a very cold spell of weather, snowing a little, and freezing considerable for three nights, killing about all the fruit that had bloomed up to that time (and there was very little but what was in bloom), so our fine prospect for fruit is all gone.

Corn, that was up, was killed down to the ground, but came out again, and many plants almost ready to bloom, which would have furnished nectar for the bees, were ruined. Notwithstanding this, vegetation has somewhat revived, and the bees are happy.

CAUSE OF BITTER HONEY.

What is the cause of bitter honey? is a question asked by some one. Well, it is the product of some plant. The only plant that I know of here that produces bitter honey is the bitter camomile; it has a yellow bloom, and looks a little like dog-fennel, and in some places in this part of Texas it quite often ruins half the honey, as very few can eat it, and it is fit for nothing but feeding bees. It appears to grow only on a certain kind of soil, and none of my apiaries are situated near where it grows.

We have another plant here—a kind of milk-weed—which we call "snow on the mountain," because of its peculiar white upper leaves, which make it look as if it was covered with snow. This plant produces peppery honey. Pure honey from this plant is too strong to eat, but when mixed with other honey, and allowed to get a few months old, it loses much of its strong, peppery flavor, and is pretty good honey.

ITALIAN BEES AS A PURE RACE.

I am somewhat surprised at much that is written in regard to whether Italian bees are a pure race or not. Strictly speaking, there may not be a pure race of any kind of animals, or insects, in the world, but I will venture the assertion that they are as pure as anything else, and it will be a more difficult matter to prove that bees "sport" than any other animal kept either for pleasure or profit; because we cannot control the mating, and cannot tell whether the queen meets a pure, hybrid, or black drone.

Round Rock, Texas, March 29, 1892.

A Visit Among Iowa Bee-Keepers.

THOS. JOHNSON.

On March 16, 1892, I began a week's visit among bee-keepers in neighboring towns. I called first upon E. N. Taggart, of Coon Rapids, who has 30 colonies of bees, all wintering well. Mr. T. obtained 200 pounds of surplus honey last year, besides leaving sufficient in the hives for Winter stores, and for Spring breeding.

I then went to see John Frost, of Exira, where I spent the evening in chatting about bees. In and around Exira the bees are wintering well so far. There was not much surplus honey taken last year.

The next day I visited W. C. Frazier, of Atlantic, who, with his wife, were just recovering from a siege of sickness. Mr. F. was just beginning to do out-door work again. He showed me his 20 colonies of bees, and some daughters of what he purchased for 5-banded queens; but if those are samples of the 5-banded bees, the breeder from whom the queens were purchased must be very far in the rear, as none of them showed more than 3 bands. Mr. F. showed me another colony of 5-banded bees, that were the actual thing; and well may he feel pround of such beautiful bees. The mother of these latter bees was purchased from another breeder of queens. I also was shown several colonies from imported queens, that were uniformly 3-banded, and all of a darkish color, but they were there, all the same. Mr. Frazier is the apiarian editor of the *Iowa Homestead.*

I next called upon a Mr. Best, who is a brother-in-law of Mr. Frazier, and lives on an adjoining farm.

I learned that in and around Atlantic, there will be lots of starved bees, if they are not fed, as they are short of stores.

From Atlantic I went to Wiota, where I saw the Levering brothers—Charles and Lawrence. I examined their bees, and found them wintering splendidly so far, both in the bee-cave and on the summer stands in chaff hives.

After leaving Wiota, I was caught in a blizzard, and stopped at the home of Chas. Baker. I then went to North Branch, and called on F. D. Barney, who, in connection with his farm of 100 acres, has an apiary of 45 colonies. He did not obtain much surplus honey last year. He is wintering his bees in a trench dug about 18 inches deep, running north and south. After putting the bees into it, he put slough hay and planks over them, and also put earth taken from the trench, on the hay. Mr. Barney's bees are in bad condition; I think he will lose one-half of them. I may have something more to say about Mr. B.'s repository, later.

D. H. Reamer, of Nelson, was the next bee-keeper I visited. He began last Spring with 11 colonies, and in the Fall had 27, with about 400 pounds of surplus comb-honey, gathered in September. He sold 250 pounds for $50, and the increase of bees for $100, besides having 10 colonies left. His expenses were $35. In connection with the bees he worked a farm of 80 acres. He made a good showing for a poor year. But Mr. Reamer knows how to take care of bees, and gives them a place to store their surplus when needed.

Lastly, I called on J. Armbaugh, of Coon Rapids, who said that in his locality bees were wintering fairly well.

The localities mentioned in my trip are where the Tennessee honey-prophet (see page 311) said there would be the greatest honey failure in 1892, of any place in Iowa. Let us take care of our bees, and see if next Fall we cannot call him a "false prophet."

Coon Rapids, Iowa, April 4, 1892.

Facts About Italian and Black Bees.

W. S. DOUGLASS.

I have read Mr. Ellingwood's article on page 192, in which he condemns the Italian bees. Six or seven years ago I became a subscriber to the AMERICAN BEE JOURNAL, the editor of which then advertised Italian queens for sale, and I sent for a tested queen. I had at that time about 30 colonies of pure brown or native bees. I introduced the queen about the middle of August—too late to ascertain their working qualities.

The next Spring this Italian colony cast 2 swarms, so I then had 3 colonies of Italian bees.

My native bees had increased to about 45 colonies. The season was a poor one; but from the 3 Italian colonies I secured 200 pounds of comb-honey; and from my native bees I got 600 pounds of comb-honey. The Italians averaged about 67 pounds per colony, while the natives averaged only about 13¼ pounds per colony. All had the same attention.

The foregoing are the positive facts. Mr. Ellingwood's Italians certainly must have been a very poor grade of Italian bees, to let the blacks out-strip them.

TEXAS SPRING-TIME IN MARCH.

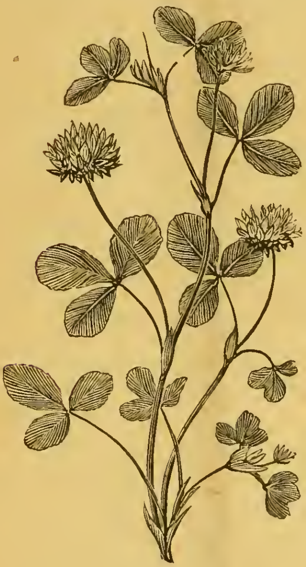
Bees have wintered here as usual. All they need is plenty of honey. My 190 colonies had from 15 to 30 pounds each, and I found out of 190 only 2 queenless. Wild peach, elm, red-bud, cotton-wood, wild plum and fruit-trees are in full bloom, so the bees are having all they can do. The Spring birds have come, so the woods are ringing with their sweet voices. Farmers are busy planting corn—some few have corn up, and it looks well.

Lexington, Tex., March 6, 1892.

Alsike Clover—How to Grow It.

EMILY E. WEST.

The value of Alsike to the bee-keeper makes it worth his while to extend its culture in every way possible. In inducing his farmer neighbors to grow it, he not only benefits himself, but also his neighbors as well. Few appreciate its value. Rightly managed it may be made to yield three products—honey, hay and seed, which, in a little more than a year, are equal in value to the land on which it grows.



Alsike Clover.

With suitable soil, and in competent hands, ten bushels of seed to the acre is a possible yield, which, at the present prices, $7.50 to $9.00, will purchase an acre of good farming land almost anywhere. There are, besides, the hay and honey.

When the cultivation of Alsike is recommended to farmers, one or more of the following objections are usually offered: 1. It does not germinate well. 2. It does not produce a paying crop of seed. 3. It does not produce as much hay as red clover. 4. The hay is of inferior quality. 5. If fed to milch cows, the butter produced is white.

In the first case, either the seed was poor, or the ground was not in proper condition.

In the second case, a short crop of seed is generally due to a lack of judgment at to the right time for cutting, and to improper handling afterward.

In answer to the third objection, it may be stated that, though the yield of hay may not be as great, the value of the whole product is greater.

Finally, the hay is better than red clover hay, the stems being less woody, and devoid of the fine hairs which render red clover hay "dusty." In this market, timothy mixed with Alsike is beginning to be rated No. 1, while timothy mixed with red clover is No. 2.

As to its effect on butter, a few roots, carrots or the like, fed to cows will remedy that. Often failure is the result of making a trial on so small a scale that the crop is neglected; then the grower thinks, of course, it is "no good."

A neighbor, Mr. McCall, has given to the Alsike clover plant the same kind of intelligent and careful study that Mr. Terry has given to the potato, with equally satisfactory financial results. Mr. McCall is too busy "compelling success" to write of his methods for the benefit of others; so, believing that they would be interesting and profitable to many, I interviewed him one evening. The following are the facts brought out:

Mr. McCall raises Alsike for the seed, so his methods accord with his aim.

The most suitable soil is a clay loam, with a good proportion of the vegetable matter; but it may be grown on almost any kind of land.

The land, having been deeply plowed and thoroughly pulverized the previous Autumn, and sown to wheat, is harrowed in the Spring with a fine-toothed harrow—an operation greatly benefiting the growing wheat. The clover seed is then sown at the rate of 8 to 10 pounds to the acre. A lighter seeding is often recommended, but Mr. M. believes that better results, on the whole, are obtained by a more generous seeding.

The sowing should be done as early as possible, so that the seed may catch some of the Spring rains. Here, the first of April is about right. It is important that the seeding be even. Bare spaces certainly lessen the crop, while overcrowded ones do not increase it. It is by attention to small details that success is won in this as in any other undertaking. If the seeding is done by hand, mixing the seed *thoroughly* with several times its bulk of sand may aid in its even distribution.

The seed may be sown with oats, if preferred, provided the ground can be put into proper condition early enough.

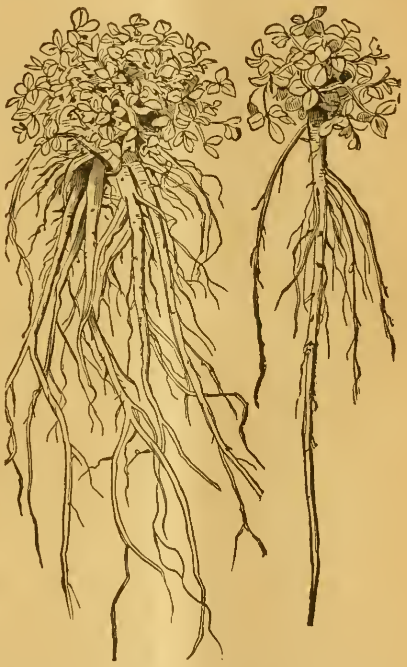
Soon after the removal of the wheat from the ground, the young clover plants should cover it. They often make such growth as to blossom and mature seed the first season. Possibly, by sowing the seed alone, and under the most favorable conditions, a fair crop of seed might be obtained the first season; but the second season is the one depended upon for the main crop, under ordinary circumstances.

In the Autumn and early Spring the field may be lightly pastured, preferably by sheep, but care should be taken to remove the stock before damage is done.

By early June the clover field should be a sheet of vivid green, with no earth visible. Later, the pink and white blossoms appear, borne at the ends of the main stalk and branches. This is the bloom which will furnish the largest and best part of the seed crop. Keep watch of them, for they soon disappear under a set of somewhat smaller blossoms, which in turn give away to another, the bloom continuing several weeks. During this time the bee does double duty in improving the yield of seed by cross-fertilization, and in gathering the nectar with which the florets are abundantly stored. Mr. M., realizing the value of its labors, purchased 10 colonies, and feels that they paid for themselves in the first season by increasing the yield of clover seed, to say nothing of their gathering 300 pounds of the finest honey in the world. Had he been an experienced bee-keeper, instead of the beginner that he was, the honey crop would have been twice as great. A week or more of bloom passed before the sections were put on at all.

To go back to those first clover blossoms—they will have become a rich brown in color, and *nearly* dry. Now is the time to cut it. Just here is where a day's delay means partial if not total failure. Waiting for the later and inferior heads to ripen, the earlier and more valuable ones, becoming *entirely* dry, burst their pods and scatter the seed upon the ground. When cut at the proper stage, a large part of the foliage is green and tender, and, with the immature heads, furnishes a hay equal, if not superior, to that from the first growth of red clover.

After it is cut, moisture does not injure Alsike as readily as it does other hay. To avoid scattering the seed, the hay should be handled as little as possible during the curing, and then only when there is moisture enough in the atmosphere to keep the stems pliable—never in the heat of the day. This is the second point of extreme importance. Drawing should be done during the earlier part of the day, after the dew is off, and again in the latter part of the afternoon. Subsequent operations need no comment until the seed is ready for the cleansing process.



Alsike Clover Root and Crown, average size, 1 year old. Red Clover Root and Crown, 1 yr. old.

In order to command the highest price in the market, the seed must be perfectly clean; but as it is so much smaller than any other kind of seed which a farmer handles, the fanning-mill requires finer screens than those ordinarily used, and the blast controlled so that seed is not blown off in the chaff. Though it requires skill and a good machine to perfectly clean seed without waste, care and ingenuity will often accomplish the desired result with slight expense, and add many dollars to the value of the crop.

The first seeding may be allowed to remain on the ground during the third and fourth seasons, and possibly fair crops may be had; but, on the whole, it is probably better to turn it under after the first cutting, and use the ground for some other crop—potatoes for instance.

The past season was an exceedingly poor one for clover in this locality; but Alsike yielded double the amount of seed obtained from red clover when the latter was worth the cutting. Many did not cut it at all.—*Gleanings.*

Flint, Mich.

The Weather and the Italian Bees.

JOHN D. A. FISHER.

We have had enough warm weather the past few weeks to bring the maple blooms out. Bees have been carrying in honey and pollen for the past 10 or 12 days; they have been gathering enough honey to make them quite lively.

The strongest colonies are beginning to get up that pleasant hum at night, which, when it greets the bee-man's ear, he knows the bees are getting honey, and the queen is laying. But to-night they are compelled to hug up close, and that sweet hum cannot be heard. This morning, about 8 o'clock, a dark cloud came up in the west, peals of thunder greeted our ears, the wind commenced blowing cold, and is still blowing to-night; it is very cold. I fear this sudden change from pleasant to severe cold weather will give the bees a set-back.

ITALIAN VS. BLACK BEES.

I am very much interested in the *pros* and *cons* in regard to the discussion of Italian and black bees. I thought that question had been settled long ago. I wonder if those who advocate the black bees as a superior race of bees to the Italians, ever gave the Italians a fair trial. We must believe that they are honest in their opinion, for we cannot believe that they are "talking just to to hear themselves talk," or to be different from the great mass of bee-keepers.

A large majority of the bee-fraternity claim that the Italian bees are far ahead of the common black bees. The Italians have fully stood the test, side by side, with their "sisters in black," and have come out victorious, carrying off the medal, and are now the standard bees of the world, and will remain so until some other race of bees is brought to light that can excel those with the yellow stripes. To do this, a bee will have to be produced with a wonderful "get up and get."

It is my opinion that there never will be a race of bees introduced that will excel the Italian bees in their improved state. Mark what I say! I may refer to this some time in the future. Give the Punics and all other races a fair trial (never condemn any race of bees until they have had a fair and honest trial), for the next ten years, and see if at the expiration of that time the Italian bee is not on the top round of the ladder, bearing a large gold medal, and saying, "I won this by keeping the moths out of my home, and gathering more honey for my keeper than any of my sisters."

Woodside, N. C., March 10, 1892.

Transferring Bees to Frame Hives.

MRS. L. HARRISON.

All bee-keepers of experience agree on this one point, that the best time to transfer bees is when the apple-trees are in bloom. At this time there are but few bees, honey and brood to be in the way. If it is just at the commencement of the bloom, there will be honey coming in to repair breakage, and fill up vacancies.

Get everything in readiness before you disturb the bees. You will need probably a cold-chisel and hammer to cut off the nails, to take off the cover, and a long, sharp-bladed knife to cut the comb from the sides of the gum.

It is taken for granted that you intend to put them into a movable-frame hive. Little splints and tacks to fasten them on the frames, and cord to wind around combs will be needed; also an old sheet, table-cloth, or something of the kind to fold up and make a soft bed to lay the brood on to prevent bruising it. You will need a table to work on, and, if you have a shop, that will be the handiest place to do the transferring.

You will need a receptacle of some kind, called a forcing-box, to drive the bees into. Whatever fits the size of the gum will answer the purpose. If you have not a bellows smoker, roll up some cotton or linen rags and tie them at short distances so that when a tie burns off they will not unroll; also a pan to lay pieces of honey in, and wash-bowl and water to wash the hands. Everything must be in readiness, and there should be no delay if the transferring is a success.

When everything is ready, smoke the bees to intimidate them and put them on their good behavior. Give them a few moments' time to fill up their sacs with honey; it will be so much out of the way, and a loaded bee never volunteers an attack. Remove the gum and place a similar one where it stood, to receive the bees returning from the fields. If the gum is not taken into a shop, and the work is done out-of-doors, it had better be removed a rod or two, to be out of the way of the bees, as all escaping ones will return to their old stand.

DRIVING THE BEES.

When the hive has been removed, invert it and place over it the forcing-box, and wind around cloth of some kind where they join together to prevent the bees from escaping, and then rap on the gum sharply for a period of 20 to 30 minutes, when the bees will be found clustered in the forcing-box like a new swarm, and could be placed on their old stand, and the bees that have returned from the fields shook from their gum in front of the driven bees, so they will all join together. If it is noticed in a short time that the bees are running over the box it is evidence that the queen is not with them, and great care must be taken in removing the combs, that she is not crushed or injured in any way.

REMOVING THE COMBS.

When the nails holding the cover are cut or pried up, as soon as there is space enough to insert a knife the combs should be cut from it so it can be removed without breaking the combs. If possible, cut the supports; it might be done with a little saw; cut the combs loose with the knife, and then lift off the gum, and the combs will be left standing entire, just as in the old gum. Do not take them apart any faster than they are fitted into the frames. Lay a large comb, if there is any, upon the folded muslin, and lay a frame upon it, making the size a trifle larger than the frame; spring it over it, and wrap twine around it to hold it in place until the bees can fasten it in.

Little splints can be tacked on the side of a frame, and small pieces laid in, when splints can be tacked upon the upper side.

Brood should be handled very carefully, and not a cell destroyed, for the profit of the colony during the coming season depends upon it; it should be placed together, and the frames containing it, in the center of the hive.

Drone-comb should be left out, and drone-brood fed to the chickens; they will enjoy it. As fast as the frames are filled, they should be hung in a hive.

When all is completed, change the frames to a clean hive if they have dripped very much, for the bees will be longer reaching the brood, which will need their care at once. Their sacs are full of honey, which they filled when they were intimidated with smoke, and they will have to store it away before they can clean up the drip, and if it ran from the hive, it would induce robbing.

CHANGING LOCATION AND QUEENS.

The location can be changed, and bees will adhere to it just as they do when they swarm. Therefore, place the hive with the transferred combs, either upon the old stand, or upon a new one, and jar the bees in front of it, either upon a cloth or a clean, smooth board, and they will gladly enter it.

If the bees are blacks, and you desire to change them to Italians, you could pick up the old queen as they enter the hive, and drop the new one in its place, and there would be no questions asked, as their attention will be taken up filling up holes and repairing breakage. In about ten days remove the strings and splints. If a new queen has been introduced, do not open the hive as soon as you otherwise would, for they sometimes kill a new queen when they are disturbed.—*Prairie Farmer.*

Black and Hybrid Bees.

CHARLES GUTH.

On page 384, Mr. Chas. White refers to the stinging qualities of the blacks. There is nothing that will beat them, except the hybrids. I have the black and hybrid bees, and as for stinging qualities there is no difference. My bees are very gentle and easy to handle. I have handled bees in the movable-frame hives without smoke or a bee-veil. The only trouble is in putting the frames back—the bees are too much in the way. On that account it is better to use a smoker.

I will admit that the blacks will get strong enough to swarm when they should work in the sections, but that is only in some years. My bees, in a good honey-flow, fill, or partly fill, the surplus apartment, and then swarm. After swarming time is over, they get strong and finish the partly-filled sections, and do not swarm as long the honey-flow lasts, as Mr. White says. My bees swarm once, and some twice.

They always have plenty of stores for winter, except late after-swarms, and one year (in 1884 or 1885) we had a drouth, but that is an exception. So Mr. White can see that my black bees do not have the hive full of brood, when they ought to have it full of honey. I I believe that with some the blacks will do better, and with others the Italians are best; still others have no luck with any bees.

There is much written about the Ialians being gentler than the blacks, and *vice versa.* I think it is not in the bees, at all. Bees do not like every person. For instance, if I have visitors, I generally show them the bees. Some visitors the bees cannot bear; three or four bees will get after them, and run them out of the apiary; others the bees do not bother. I know a man who would like to keep bees, but the bees cannot endure him.

About being prosperous in bee-keeping, it is the same difference as in stinging qualities with some persons. I know many who kept bees, but were not successful, where others in the same locality did well with the bees.

Bees in this locality have wintered well, and are strong, with plenty of stores. They are working on the maples on warm days. There are fine prospects for a good honey season, if the weather is favorable.

Santa Claus, Ind., March 28, 1892.

Importance of the Industry of Apiculture

R. S. RUSSELL.

Apiculture is the science of keeping bees, and it seems that no ancient history is complete without due consideration of this most useful and industrious little insect; and from Genesis to Revelations in the Holy Book, may be found the most beautiful references. God, in his supreme wisdom, placed honey in comparison of all products, second only to milk in importance. He promised a "land flowing with milk and honey," plainly indicating the two most important industries of our model country. Now, that we possess the "promised land," and have a first-class creamery in almost every town of our grand State, and the milk secured, is it not high time that we cease talking "pickle and canning factories," until we reach them in their proper order?

Our honey industry is next on the list. Strange that our government should pay 2 cents bounty on 4 cents worth of sugar, and nothing on 20 cents worth of honey! Yet we have unimpeachable testimony that our land is "flowing with honey." We have nearly 5,000,000 square miles of territory with an estimated capacity of 10,000 pounds of honey on each square mile per annum, making the enormous amount of 50,000,000,000 pounds of honey per annum! This honey, at 20 cents per pound, would make in even money $10,000,000,000 per annum for Uncle Sam. Indiana's share of this honey is enormous.

Be it said to the shame of the would-be intelligence of the present age, that this great source of wealth is almost totally ignored in many parts of our beautiful State, either through base ignorance or superstition, while the inhabitants are blindly striving to out-rival each other in heaping the now over-burdened granaries of the world with corn and wheat at starvation prices. Better sell your teams and buy a few cows and some bees, and be a dealer in milk and honey, and improve your leisure in reading bee and dairy literature.

Do not fear that you will overstock the country with bees, as 200 colonies in one yard, properly managed, will do equally as well as if scattered a mile apart, yet (hark!) I hear some skeptic say that is not so. But, when I tell him the main honey-flow only lasts about 15 days in the year, and during that time it is utterly impossible to get bees enough to gather it, the scales may drop from his eyes.

In Germany, 900 colonies are kept at a profit on each square mile, and surely we have a much richer soil and a purer atmosphere than Germany or any other country of the Eastern Continent; yet we can well look to Germany for lessons of economy, in developing the great wealth of our most wonderful country—the "promised land," "a land flowing with milk and honey."

Strange that it has taken over 100 years for our people to learn that milk is our most important product, and no doubt it will require 100 years longer to learn that our honey is the next in importance, although it was so declared by the Creator almost from the very beginning.

The most flattering report of our own State, this year, is given by Mr. Manford, of Hamilton county, to our State Bee-Keepers' Association. He began the season with 10 colonies, worth $6 per colony; produced 200 pounds of surplus per colony of extracted-honey, and sold it at 16 cents per pound, making a net profit of $32 per colony, or a total of $320, almost net profit. This report is in the very face of the fact that the past season was one almost unparalleled for drouths and unfavorable conditions, for even the very flowers were roasted alive. Honey production should inspire us all with unbounded faith in the honey-bee, as one of the greatest factors in developing our untold wealth.

My own report for the past year, on 110 colonies, gives less than one-half per colony, as compared with Mr. Manford's bees, my net surplus being nearly 72 pounds per colony. The best colony produced only 108 pounds of surplus, yet it must be considered that my efforts were directed toward the production of a higher grade of honey, namely, fancy comb, much of which finds ready customers at 25 cents per pound in the city, and first premium at our State Fair. Such a product is always scarce, and higher, and cannot be controlled by any monopoly, but awaits your own pleasure of naming the price; and while it is conceded by all that nearly, or about twice, the amount can be obtained by the extracting method, it is yet a debatable question as to which method is most profitable in dollars. The facts are about as follows:

While Mr. Manford has the satisfaction of seeing his bees work with all possible speed through the entire honey harvest, my bees may have taken a "fool notion" to swarm, and may absolutely refuse to perform any labor for days or weeks. This is our darkest hour, and we are found meditating earnestly—a most peculiar "strike," this; and were it among the "men" in this case, it would not be worth a moment's notice. Yet, to our utter mortification we see it is our most industrious little "women" that are "in it." The "men" of the colony, instead of chastising them, as would be supposed, stand back and "laugh" and "wink" at each other.

The "strike," like all others, is just at the time when labor is most needed, and in this case is usually right in the midst of our honey harvest, and incurs a loss of from 10 to 30 pounds of honey per day, to the striking colony.

While my crop is not large, less than four tons, it brought over $1,500, besides several fine swarms as increase; and as bees are non-taxable in our county, leaves a net profit of at least $1,400, allowing $100 for the labor incurred. This will over-balance the net profits of my farm of 200 acres, by more than $400. Let me see: 110 colonies, Spring count, worth $660; profit, net, $1,400. Farm, 200 acres of good land, worth $12,000; profit, about $900. These are surely strange figures, yet they are such that can be verified by hundreds of men besides myself.

Now, I will say to you, fellow farmers, do not rush wildly into apiculture, expecting the bees to make a fortune while you lounge around; you will be disappointed, and, just as with other stock of the farm, you must learn their characteristics; you must be a man of deliberation and judgment; you must know the true condition of the colony at all times; you must be able to judge at once when the colony is in prime condition, and when not, and how to place it in such condition as will insure success; in short, you must be the director of the entire work, and understand them just as well as you do your hogs, horses, cattle and chickens, and be able to handle and inspect them just as easily without any gloves or veils, and without fussing and fighting with them.

This is so easily learned, requiring only an outlay of about $1.50 for any of the many valuable standard books on apiculture, as a reference guide; and about one day's practical experience with some live apiarist. It is also necessary that your wives, sons and daughters should be equally well posted in this most important industry of the farm, and I can say, and boast with pride, that my own dear better-half, besides acting the noble part of mother for nine children, is equally as competent as her much-elated husband in solving all the most intricate problems of our large apiary at a single glance.

Bees are not disagreeable, fussing creatures, as many are led to suppose, but, on the contrary, they are very intelligent, quiet and unassuming; never offering resistance save in defense of their lives or homes. Their language is well understood by each other, and partially understood by many distinguished apiarists. While their greatest usefulness, aside from gathering honey, is not generally known by the masses, it is well understood by our great scientists, that the true design of the Wise Creator was that the bees should act as the most important agents of cross-fertilization of flowers; scarce, knotty and few indeed are our apples, peaches, pears, quinces and cherries, as well as all other fruit, when it is too cold and stormy during the blooming season for the bees to properly distribute and commingle the fertilizing pollen from flower to flower. May this not be why the tempting drop of nectar is placed in each tiny flower? Surely, all horticulturists should keep bees.

In conclusion, we entreat you as a true brother, to examine closely this greatest leak of the farm; make an heroic effort to save the "rivers of honey" which God himself has declared is flowing from your farms; purge the scrawny, half-matured fruits of all kinds from your farms, by properly fertilizing the bloom; and double the yield of your clover seed. This can only be done by following the line plainly mapped out by the All-Wise Creator.—*Read at the Noble County, Indiana, Farmers' Institute.*

Zionsville, Ind.

Influence of Climate and Blossoms.

S. NELSON.

Italian bees will work well if they have all the brood-frames that they can cover, but not small sections. They might work well in 3-pound or 4-pound sections, but such large ones do not suit our trade here. The Italians breed up quicker in the Spring than blacks, but that is of no use, as we never get any surplus from either race until September or October; then our white honey is gathered, and all the honey we get in the months of June, July and August is very dark-colored. Some bee-men say that buckwheat honey is all dark, but that is a great mistake; for some years we have the whitest kind of honey from buckwheat. I think that climate and the kind of blossoms the bees work on makes a difference in the nature of the bees; for when working on chestnut, basswood and locust, the bees are very easily handled; but when they work on corn, ragweed and golden-rod, look for a fight; and the more honey they have, the more smoke they will stand.

Keating, Pa.

The Amateur Bee-Keeper, by J. W. Rouse; 52 pages. Price, 25c. For sale at this office.

CONVENTION DIRECTORY.

Time and place of meeting.

1892.
Apr. 21.—Colorado State, at Golden, Colo.
H. Knight, Sec., Littleton, Colo.

May 5.—Susquehanna Co., at Brooklyn, Pa.
H. M. Seeley, Sec., Harford, Pa.

May 17.—Northern Illinois, at Harlem, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

May 28.—Haldimand, at Nelles' Corners, Ont.
E. C. Campbell, Sec. Cayuga, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Eugene Secor..Forest City, Iowa.
SECRETARY—W. Z. Hutchinson....Flint, Mich.

National Bee-Keepers' Union.

PRESIDENT—James Heddon ..Dowagiac, Mich.
SEC'Y AND MANAGER—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Bees Wintered Splendidly.

My bees wintered splendidly in the cellar without any loss. They are on the summer stands, and yesterday they brought in pollen in good earnest. I never had them come through the Winter in such good condition, yet I will have to take some honey from their hives, as most of them have more than they need. L. GEORGE.

Oakwood, Wis., April 4, 1892.

Apiarian Observations in Florida.

While I have been located at St. Andrew's Bay, Fla., I have watched with much interest the bees and flora of this region. I arrived in this locality on Jan. 9, and the bees were working, to a limited extent, the peen-to peach-trees being then in bloom. I had no opportunity of opening hives, but when I watched them, a little pollen was carried in. Bees had a grand banquet spread for them during the blooming of pear and plum trees, and I am sorry to say that the people will not have a great feast at its ripening, for much of it was killed by a late frost in March. Peen-to and honey peaches were entirely destroyed in many instances, but later peach-trees are full of fruit. Fruit-trees bloom much longer here than at the North, and black and dew berries continue in bloom, I am told, for nearly two months, and the fruit is ripening for that length of time. I watched the bees to-day working upon the orange bloom, also upon dewberry and blackberry bloom. There is wild-sage growing in every nook and corner, and residents say that it is the same as that of California; bees have been working upon it for weeks, also upon ti-ti and spider-wort, which is abundant in what Southern people call "savannas," and Northern people call "meadows." Bee-culture is much neglected here, and it is a pity, for it would be a great help to homesteaders, who are trying to gain a foothold among the pine woods. It is a great country for trees and bushes, and and most of them have bloom, which the bees would utilize. I have not seen an Italian bee in this locality.

MRS. L. HARRISON.
St. Andrews' Bay, Fla., April 2, 1892.

Wintered Better than Expected.

On March 25 I took my bees from the cellar for the third time the past few months. I am very glad to say they have come out better than I expected. I lost 3 colonies out of 30. Last Fall I doubled up several of my colonies, having more than I wished to keep; these double colonies have wintered the best, having their hives clean and dry, and now I have plenty of brood-frames full of honey to feed to those not having enough.

W. P. ODENDAHL.
Moline, Ills., April 2, 1892.

Successful Wintering of Bees.

I find a great many important things in the bee-papers for one who keeps bees. I have had very good results so far in wintering bees. Last December I had 41 colonies, and lost only two. I think that was not bad. I winter my bees on the summer stands, in single-walled hives. I put chaff on both sides, and a cushion on top. My bees are looking well. Last season was a poor one here. We did not get much honey; but I am ready for another Summer, and hope to get more honey. There are a few bee-keepers within about five miles of me, and they are quite successful. I think that all of us have Italian bees. I introduced about 20 queens last season, some as late as the middle of November, and had good luck with them all. I notice that some are in favor of black bees, but I am through with them. No more blacks for me.

CICERO H. HIGGINS.
Ringoes, N. J., April 4, 1892.

No More Wintering on Honey-Dew.

Bees are having a Spring carnival. I had no loss from their wintering on honey-dew, but will never try it again, for those fed on good honey and sugar syrup are more than twice as active as those fed on honey-dew. It has been said, that a hard Winter with heavy snows precedes a good honey crop, but I think that seasonable rains during the Spring and Summer tend more toward bringing a good honey crop, than any kind of Winter weather can possibly do.

I wonder what is the matter with some of those young bee-papers. Are they subject to "Spring dwindling," or are the publishers having *La Grippe?*

E. E. SMITH.
Carpenter, Ills., April 2, 1892.

[We do not know the reason for the irregularity of the new papers referred to. We have as yet (April 4) received no March numbers of the *Progressive Bee-Keeper*, *White Mountain Apiarist*, and *Bee-Keepers' Magazine.* If they were mailed, they must have miscarried somehow. Perhaps the April issues will appear in a few days.—ED.]

Plenty of Honey Expected this Year.

The Spring condition of my bees I am satisfied is very difficult to excel. I have 260 colonies, and lost ony two. All are doing well, and the prospects are good for plenty of honey the coming season.

GEORGE HONE.
Benjamin, Utah, April 2, 1892.

If You Want to know how Queens are fertilized in upper stories, while an old Queen is laying below—how to *safely introduce* Queens at any time when bees can fly—all about different bees, shipping Queens, forming nuclei, multiplying or uniting colonies, etc.—send us $1.00 for "Doolittle's Queen-Rearing;" 170 pages; bound in cloth, and as interesting as a story.

Wavelets of News.

Stray Straws.

Good-nature seems to be one of the prominent features that characterize the discussions of bee-keepers now-a-days.

Do bees sleep? The *Centrallblatt* thinks they have no need of sleep, at least not in Summer. I wouldn't be a bee.

Don't be fooled by one or two warm days into bringing your bees out of the cellar too soon. Let 'em roar in the cellar if they want to. Just open all up at night and give them a good airing.

The Congress of Paris agreed upon three frames as standard—a "high" frame, 30x40 centimetres; a "low" frame, 40x30, and "square" frame, 35x35. The high frame is for mountainous or cold regions; the low one for hot, and the square for medium climates. The square frame is about 13¾ inches square.—Dr. C. C. Miller, in *Gleanings*.

Sainfoin as a Honey-Producer.

Esparcette, or sainfoin, grows well in the mountain counties of California without water, and on the rockiest kind of soil. There is not enough of it near my apiary to determine its value as a honey-plant, but the bees work upon it first-rate. A bee-keeper in Marin county informed me that it is destined to become one of the leading forage and honey-producing plants of the country. —S. L. Watkins, in the *Rural Press*.

Locating an Apiary.

In beginning bee-keeping the location is one of the most important things to be considered. As bees ascend with difficulty when heavily laden, it would be better to have the apiary located in a valley, that after obtaining a load of stores on the neighboring hills, they may, as they return with their load, have a descending flight. Low ground is also better protected from high winds. Learn which are the best honey-yielding plants and trees, and try if possible to locate within reach of reliable pasturage. While bees will go three or four miles if necessary, the best results are obtained, as a rule, by having an abundant pasturage within at least two miles.

Look well to the immediate surroundings. A location near ponds or large bodies of water is not generally desirable. Bees become fatigued while on the wing, especially when flying against the wind, and by dropping in the water often become chilled and drown.

It is a great advantage to have a strip of timber on the windward side of the apiary, to shelter hives from cold, heavy winds. If no natural protection is afforded, a close, high board fence should be put up for the purpose. In building the fence, the nails should not be driven in firmly, but should be so left that they may be easily drawn, so that more or less of the boards may be removed during the hottest weather, to permit a free circulation of air.

When the hives are not protected from wind, the bees when returning with heavy loads are frequently unable to strike the hive, are blown to the ground, become chilled and die. It is especially necessary to protect bees during the Spring months, because the colonies then contain fewer bees than at any other time; and every bee is needed to keep the brood warm.

If one is located where there is but little natural pasturage for bees, much can be done to improve such a locality by furnishing artificial pasturage, and for this there is no better crop than alfalfa. Honey from wild flowers in Colorado, as elsewhere, is not so good as alfalfa. Cleome is the next best.—*Field and Farm.*

Manipulation of Bees.

A friend asks, "What temperature is it safe to manipulate a colony of bees?" As this is quite an important matter, I wish to mention it here. The mercury ought to register at least 60° in the shade, and then no colony should be opened until the bees have had a flight. At the approach of Spring, on warm days, you will notice that while some colonies are quite lively, others will seem to be dead from all outward appearance; these may be in just as good condition as the others, but to open such colonies and arouse them from their state of quietude, is bound to do them harm, even though the temperature be 70° in the shade.

From all reports received here, bees are wintering well, and the season promises to be a prosperous one, yet it is early to predict with any degree of accuracy. Winter losses can generally be traced back to one of these three causes: lack of stores, leaky cover or leaving empty surplus arrangements on the hive.—W. S. Pouder, in *Ind. Farmer.*

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☞ As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.

YOU NEED an Apiary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for $1.25; or for 200 colonies for $1.50. *Order one now.*

◆

Supply Dealers desiring to sell our book, "Bees and Honey," should write for terms.

◆

We Club the American Bee Journal and the Illustrated Home Journal, one year for $1.35. Both of these and Gleanings in Bee Culture, for one year for $2.15.

◆

If You Have any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time.

◆

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

◆

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

◆

When talking about Bees to your friend or neighbor, you will oblige us by commending the BEE JOURNAL to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the Convention Hand-Book by mail, postpaid. It sells at 50 cents.

HONEY AND BEESWAX MARKET.

CHICAGO, Apr. 9.—Fancy white comb selling at 16c.; other grades 10@14c. Extracted slow demand, 6½@7½c. Beeswax, 26c.
S. T. FISH & CO., 189 S. Water St.

NEW YORK, Apr. 9.—Little demand, sufficient supply. We quote: Fancy white 1-lbs., 13@14c.; off grades, 11c.; buckwheat, 9c.—Extracted, California, white clover and basswood, 7@7½c.; Southern, 65@70c. per gallon. Beeswax, very scarce at 28@29c.
HILDRETH BROS. & SEGELKEN,
28-30 West Broadway.

KANSAS CITY, Mo., Apr. 9.—Demand very slow, supply good. White 1-lbs., 14@15c.; dark, 8@12c. Extracted, white, 7c.; amber, 6@6½c.; dark, 5c. Beeswax, demand good, supply very light; 23@26c. per lb.
CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI, Apr. 9.—Demand is fair for extracted honey at 5@8c. Fair demand and good supply of comb honey at 13@16c. for best white.

Beeswax is in good demand, at 23@25c for good to choice yellow.
C. F. MUTH & SON,
Cor. Freeman & Central Aves.

NEW YORK, Apr. 9.—Demand for honey is very light and supply more than demand. For fair comb, 9@11c. Fancy 1-lbs., 12@13c.; 2-lbs., 12c.; buckwheat, 7@8c. Extracted, clover, 7c.; buckwheat, 6@6½c. Beeswax—Demand moderate, supply enough to meet it; 27@29c. per lb.
CHAS. ISRAEL & BROS., 110 Hudson St.

KANSAS CITY, Mo., Apr. 9—Demand poor, supply of comb honey large. Fancy 1-lbs., 14@15c.; dark, 8@9c. Extracted, white, 7 cents; dark, 5@6c. No beeswax on the market.
HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, Apr. 9.—The demand for comb-honey is light, supply low; 12@13c. per lb. Extracted, 7@8c. Not much in stock. Beeswax—Demand fair and supply good. 27@28c. Very little of old honey crop will be left when new crop comes forward.
M. H. HUNT, Bell Branch, Mich.

CHICAGO, Apr. 9.—Demand good and sup-sufficient. We quote: Comb, 14@16c. Extracted, 6@7c. Beeswax, in light supply, and good demand, at 25@27c.
J. A. LAMON, 44-46 S. Water St.

MILWAUKEE, Apr. 9.—Demand very moderate, supply average of all grades but common quality. Best 1-lbs. 15@16c; common, 12@13c. Extracted, white, in barrels, 7c.; in kegs, 7½c; in pails, 7½@8c. Beeswax—demand fair, supply small. Price, 23@28c.
A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO, Apr. 9.—Demand light, supply about exhausted. Comb, 1-lb., 10@12c. Extracted, 5¾@6¾c. Beeswax, in light supply and good demand, at 25@27c.
SCHACHT, LEMCKE & STEINER,
16 Drumm Street.

NEW YORK, Apr. 9.—Demand moderate, and supply reduced, with no more glassed 1-℔ nor paper cartons, 1-℔. We quote: Comb, 1-℔, 14@15c. Extracted—Basswood, 7¼@7½c; buckwheat, 5½@6¼; Mangrove, 68@75c per gal. Good demand for dark extracted honey. Beeswax, in fair supply, with small demand, at 26@27c.
F. G. STROHMEYER & CO., 122 Water St.

CHICAGO, Apr. 9.—Demand is now good supply is not heavy. We quote: Comb, best grades, 15@16c. Extracted, 6@8c. Beeswax, 26@27c. R. A. BURNETT, 161 S. Water St.

BOSTON, Apr. 9.—Demand is fair, supply ample. We quote: 1-℔. fancy white comb, 13@15c; extracted, 6@7c. Beeswax, none in market.
BLAKE & RIPLEY, 57 Chatham St.

MINNEAPOLIS, MINN., Apr. 9.—Demand is moderately good, supply not large though considerable No. 2 in sight. White 1-lbs., 15@16 cts.; dark, 10@14c. Extracted, in large packages, white, 8@9c.; small, 9@10c.; dark, not in so good demand and at lower prices. Beeswax, demand good, supply very light on good quality; 26@30c. per lb.
STEWART & ELLIOTT.

NEW YORK, Apr. 9.—Demand is light, and supply large, except buckwheat comb. We quote: Fancy white comb, 12@14c; buckwheat, 9@11c. Extracted—Clover and basswood in good demand at 6½@7c; buckwheat ind emand at 5@6c. Beeswax in fair demand at 26@28c.
F. I. SAGE & SON, 183 Reade St.

ALBANY, N. Y., Apr. 9.—Demand is very light, supply ample. Do not think that any will be carried over. We quote: 8@12c. per lb. Extracted, 6@8c. Beeswax—Demand is good, supply light; 28@30c. Cold weather helps to work off the over-crop of honey.
H. R. WRIGHT, 326-328 Broadway.

The Convention Hand-Book is very convenient at Bee-Conventions. It contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with Subjects for Discussion. In addition to this, there are about 50 blank pages, to make notes upon, or to write out questions, as they may come to mind. They are nicely bound in cloth, and are of the right size for the pocket. We will present a copy for one new subscription to the BEE JOURNAL (with $1.00 to pay for the same),or 2 subscribers to the HOME JOURNAL may be sent instead of one for the BEE JOURNAL.

◆

Calvert's No. 1 Phenol, mentioned in Cheshire's Pamphlet on pages 16 and 17, as a cure for foul-brood, can be procured at this office at 25 cents per ounce, by express.

◆

Get a Binder, and always have your BEE JOURNALS ready for reference. We will mail you one for 50 cents.

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THOMAS G. NEWMAN, EDITOR.
GEO. W. YORK, ASSISTANT EDITOR.

Vol. XXIX. April 21, 1892. No. 17.

Editorial Buzzings.

I May Not Reach the heights I seek,
My untried strength may fail me;
Or, half-way up the mountain peak,
Fierce tempests may assail me.
But though that place I never gain,
Herein lies comfort for my pain—
I will be worthy of it.

◆

The Blood of bees is not red, but it is colorless.

◆

Enthusiasm and perseverance are the peculiar characteristics of bee-keepers.

◆

We Regret to learn that our friend D. A. Jones (editor) and Mr. Somers (proprietor) of the *Canadian Bee Journal*, are both laid up with *La Grippe*. As the Spring weather comes, they will no doubt be able to throw off its baneful influence, and we hope will fully recover their former health and strength.

Once More we have cause for rejoicing; the trouble about importing queen-bees free of duty has been arranged again. When the new tariff went into effect, queens were charged a duty of 20 per cent. We made a fuss about it in the AMERICAN BEE JOURNAL, and *Gleanings*, and obtained temporary relief. Now permanent relief has come, by a decision to that effect by the Secretary of the Treasury—and they are now in the same category as "animals for breeding purposes," even though they are not "regularly entered in recognized herd-books." We are, no doubt, indebted to Frank Benton, now an attache of the Department of Agriculture, and to Prof. Willits, late of the Michigan Agricultural College.

◆

The Kentucky Agricultural Experiment Station, of the State College at Lexington, Ky., has sent to us Bulletins Nos. 36, 37, 38 and 39, treating of various subjects of great interest to all Kentucky farmers. Copies of Bulletins of this Station can be had free, by sending name an address to the Kentucky Agricultural Experiment Station, at Lexington, Ky.

◆

Self-Hiving Arrangements are now receiving considerable attention on the part of the inventive geniuses in the bee-keeping fraternity. Mr. Wesley Dibble, of Middleburgh, N. Y., has sent excellent photographs of his self-hiving device, to be placed in the BEE JOURNAL album. They will be placed therein for the inspection of visiting bee-keepers.

◆

Mr. C. A. Phenicie, of Tacoma, Wash., is dead. He had been an earnest student of apiculture for the past twelve years, having, the past year, 84 colonies of bees, which will be cared for by his son. We extend our sympathy to the bereaved ones.

◆

Good Honey is about one-third heavier than water.

Governmental Aid for the pursuit of apiculture is at once so apparent in its necessity and advisability, that scarcely any discussion of the subject is demanded. Some of the principal points relating to the subjects to be investigated by the proposed aid, are fully and clearly indicated in the able article by Mr. P. H. Elwood, ex-President of the North American Bee-Keepers' Association, as published on page 542 of this issue of the BEE JOURNAL.

It has been very evident for years that the importance of the apicultural interests of the United States entitles it to fully as much, if not more, consideration at the hands of the Government than do those of silk-culture and ornithology, which are now elevated to Independent Divisions in the Department of Agriculture. To be recognized as a "section" in the Division of Entomology is something, certainly, but compared to the position which the great pursuit of apiculture is entitled to, it is far beneath its just due.

We believe that when there is a united demand, on the part of the progressive apiarists of our country, for proper recognition on the part of our Government, such aid as we now so much need in the line of helpful experimentation in various directions, will be accorded to us; and then will we begin to witness such forward strides, both in scientific and practical bee-keeping, the like of which has not as yet been dreamed of by our most imaginative apiarian dreamers and enthusiasts.

Mr. Elwood has named a few, and we will not attempt to enumerate more, of the live, unsettled questions that such an experiment apiary established at Washington might undertake to answer and settle by careful and painstaking investigation, as proposed in the suggestions mentioned in the article under consideration. After those already named have received the necessary attention to arrive at a settlement, others will be forthcoming with sufficient rapidity to claim all the time and means at the command of the Superintendent and assistant of such Apicultural Division as is proposed.

Let the subject be agitated until our just requirements are allowed, and the National Government extends its fostering care. Let every bee-keeper's influence be used to the attainment of their rights and privileges as worthy agriculturists and patriots. Let the united assistance and wisdom of every lover of our useful pursuit be enlisted in this common cause, until victory shall be won, and apiculture takes its rightful position among the most honored industries of the world.

Mr. Alpaugh, of Canada, claims to have discovered a new system of bee-keeping, which as yet is not made public. Mr. D. A. Jones has described in the *Canadian Bee Journal* what he thinks he knows about it. From that, a correspondent presents this condensed statement:

> The system is, I think, that of placing a hive between 2 colonies and starting a colony in the central hive. The colony in the central hive is to be devoted to the storing of the surplus, while the two outside colonies are to be "feeders" to the central colony.
>
> These outside colonies are to be manipulated something as the old hive is managed by the Heddon system of preventing after-swarming.
>
> When the three hives are standing all in a row, close to each other, the entrances all facing one way, the outside hives are to be reversed—their entrances turned in the opposite directions. This would throw the working force all into the central hive. The outside hives are again brought gradually around so that their entrances are the same as that of the central hive, only to be again reversed, throwing another force of bees into the central hive.
>
> Swarming is prevented, and great crops secured. Just how all this is to be managed to make of it a success Mr. Alpaugh has not yet told, but he is wonderfully enthusiastic over his plan.

Even One colony of bees, if a success, will produce honey enough to furnish much enjoyment to the family.

Spraying of Fruit-Trees and other plants has come to be a necessity in order to secure a profitable yield so as to sufficiently remunerate the grower for the time, care and labor spent in cultivation. But that the doing of anything so necessary to the success of the fruit-grower should be performed in a way, and at a time, which should prove detrimental to the interests of the fruit-growers' best friends—the bee-keepers—would be much regretted, were it not for the fact that such spraying, if *properly* done, will in no wise result in loss to the apiarists.

Bulletin No. 7, as issued by the United States Department of Agriculture, and to which we referred on page 505, gives full directions for making and applying the various poisonous compounds used in spraying for the destruction of the harmful pests, and states very decidedly that "no spraying as described by the Department has ever resulted in the slightest deleterious effects upon the fruit subjected to it." This will be welcome information to all who feared that the spraying had caused poisoning among those who had partaken of fruit which had been sprayed. It thus behooves all who employ this means of protecting their fruit, to follow carefully the *modus operandi* as given by the Department of Agriculture.

On the subject of preparing the arsenites (London purple, Paris green and white arsenic) for spraying purposes, the Bulletin says:

> The poisons should be thoroughly mixed with water at the rate of from 1 pound to 100 to 150 gallons of water, and applied with a force pump and spray nozzle. In preparing the wash, it will be best to first mix the poison with a small quantity of water, making a thick batter, and then dilute the latter and add to the reservoir or spray tank, mixing the whole thoroughly.
>
> When freshly mixed, either London purple or Paris green may be applied to apple, plum, and other fruit-trees, except the peach, at the rate of 1 pound to 150 to 200 gallons, the latter amount being recommended for the plum, which is somewhat more susceptible to scalding than the apple. White arsenic does little, if any, injury at the rate of 1 pound to 50 gallons of water when freshly mixed.
>
> As shown by Mr. Gillette, however, when allowed to remain for some time (two weeks or more) in water, the white arsenic acts with wonderful energy, scalding when used at the rate of 1 pound to 100 gallons from 10 to 90 per cent of the foliage; the action of the other arsenites remains practically the same, with perhaps a slight increase in the case of London purple.
>
> With the peach these poisons, when applied alone, even at the rate of 1 pound to 300 or more gallons of water, are injurious in their action, causing the loss of much of the foliage.
>
> By the addition of a little lime to the mixture, London purple and Paris green may be safely applied, at the rate of 1 pound to 125 to 150 gallons of water, to the peach or the tenderest foliage, or in much greater strength to strong foliage, such as that of the apple or most shade trees.
>
> Whenever, therefore, the application is made to tender foliage, or when the treating with a strong mixture is desirable, lime water, milky, but not heavy enough to close the nozzle, should be added at the rate of about 2 gallons to 100 gallons of the poison.

In spraying apple-bloom, which perhaps as much as any other (if not more) affects the bees most seriously when not applied at the proper time, the Bulletin continues thus:

> With the apple, in spraying for the codling-moth, at least two applications should be made, *the first, after the falling of the blossoms, or when the apples are about the size of peas*, and the second a week or ten days later. The first brood of the codling-moth lays its eggs in the flower end of the young apple, and the worms upon hatching gnaw their way into the interior of the apple, and on sprayed trees get poisoned in so doing, an infinitesimal amount being sufficient to destroy so minute a worm. The second spraying is for the purpose of destroying larvæ hatching from eggs which may be laid after the first spraying, as the arsenic is gradually washed off by rains.
>
> For the plum curculio on the plum, cherry, peach, etc., two or three applications should be made during the latter part of May, and the first half of June. The poison in this case is applied for the

purpose of destroying the adult curculios which hibernate and gnaw into the young growth of the trees, and even into the hard young fruit before laying their eggs. The eggs are pushed under the skin so that the larvæ are not ordinarily affected by the poisoning.

In the case of most leaf-feeding insects one should spray on the first indication of their presence.

Treating the subject of spraying from a purely hygienic stand-point, several instances are cited where careful experiments have been made to ascertain what possible deleterious effects could arise from the consumption of fruit to which had been applied the arsenites so deadly to the codling-moth and other parasites. Regarding the eating of apples that were so treated, the following reference is made:

> In case of spraying apple orchards for the codling-moth, there is scarcely a possibility of injury to the consumer of the fruit. A mathematical computation will quickly show that where the poison is used in the proportion of 1 pound to 200 gallons of water (the customary proportion) the arsenic will be so distributed through the water that it will be impossible for a sufficient quantity to collect upon any given apple to have the slightest injurious effect upon the consumer. In fact, such a computation will indicate beyond all peradventure that it will be necessary for an individual to consume several barrels of apples at a single meal in order to absorb a fatal dose, even though this enormous meal be eaten soon after the spraying, and should the consumer eat the entire fruit.
>
> As a matter of fact careful microscopic examinations have been made of the fruit and foliage of sprayed trees at various intervals after spraying, which indicate that after the water has evaporated, the poison soon entirely disappears, either through being blown off by the wind, or washed off by rains, so that after 15 days hardly the minutest trace can be discovered.

In order, then, to receive a fatal dose of the poison, an individual must "*consume several barrels of apples at a single meal!*" Whew! Please excuse us from such an experiment to test the poisonous effects of sprayed fruit! How foolish to suppose that one or two apples could possibly contain a sufficient amount of the poison to produce any apparent effect!

In the line of actual experiment as indicating the very finely divided state of the poison, and the extremely small quantity which is used to each tree, Prof. A. J. Cook, of the Michigan Agricultural College, has conducted some striking experiments. A thick paper was placed under an apple tree which was thoroughly sprayed on a windy day, so that the dripping was rather excessive. After the dripping had ceased, the paper (covering a space of 72 square feet) was analyzed, and four-tenths of a grain of arsenic was found. Another tree was thoroughly sprayed, and subsequently the grass and clover beneath it was carefully cut and fed to a horse without the slightest sign of injury.

The whole matter was well summed up by Prof. Riley, in a recent lecture before the Lowell Institute, in Boston, in the following words:

> The latest sensational report of this kind was the rumor, emanating from London, within the last week, that American apples were being rejected for fear that their use was unsafe. If we consider for a moment how minute is the quantity of arsenic that can, under the most favorable circumstances, remain in the calyx of an apple, we shall see at once how absurd this fear is; for, even if the poison that originally killed the worm remained intact, one would have to eat many barrels of apples at a meal to get a sufficient quantity to poison a human being.
>
> Moreover, much of the poison is washed off by rain, and some of it is thrown off by natural growth of the apple, so that there is, as a rule, nothing left of the poison in the garnered fruit. Add to this the further fact that few people eat apples raw without casting away the calyx and stem ends, the only parts where any poison could, under the most favorable circumstances, remain, and that these parts are always cut away in cooking, and we see how utterly groundless are any fears of injury, and how useless any prohibitive measures against American apples on this score.

Such, then, is the result of the investigation as made by the expert scientists of the Department of Agriculture, and various State Agricultural Colleges. It should inspire confidence in the heart of every consumer of American fruits, and also cause every lover of justice and honor to co-operate in the efforts to establish and extend the knowledge of the harmless effects of sprayed fruits when such spraying is properly applied.

Mr. C. S. Walters, in the *Farmers' Home*, writes thus wisely on the subject, urging harmonious action on the part of horticulturists and bee-keepers:

> The fruit and honey interests should work together, and for the latter it is very important that the spraying of trees should be done at the right time. It is an unnecessary and useless labor and expense to spray the fruit trees when in blossom. The proper time to have good effect is to spray immediately after the blossoms have fallen. Paris green and London purple must both be deposited on the fruit itself to have any effect, and this cannot be done when the blossoms are on the trees. The petals of the blossoms cover the fruit until they have withered and fallen from the trees.
>
> Spraying the trees when the blossoms are on them is labor thrown away. Moreover, whole colonies of bees are killed off by eating such poison in the blossoms of the fruit trees, and this is the chief loss.

That the bees should ever receive their death at the hands of unwise fruit growers, is to be regretted, and perhaps cannot better be prevented than by seeing to it that all who must spray with poisonous compounds do so at a time which shall not endanger the lives of the bees, that are really the most helpful of all agencies in producing a bountiful yield of luscious fruits. If the presentation of simple argument will not have the desired effect in securing the respect of the fruit-growers, of course nothing remains except an appeal for the enactment of such legislation as shall protect bee-keepers from loss on account of carelessness and willful ignorance.

The apiarist cannot afford to lose his bees, and the farmer or fruit-grower cannot afford to kill the bees. They are a benefit to both, and should be protected in every way possible.

Bees and Farmers should always be the best of friends. Very often the bees are of more real benefit to the farm than the owner supposes. Their value is not entirely dependent upon the amount of honey they gather, but it would be difficult, indeed, to compute, or even estimate, their services in increasing the productiveness of fruits and other farm crops by acting as agents for the distribution of pollen. This fact is sufficient reason why a place should be made for them on every farm. If kept for no other purpose than the benefit they do to growing crops and fruit-bearing trees and plants, by spreading the pollen among the blooms, these industrious workers would be a valuable adjunct.

Testimony is abundant and conclusive as to the desirable effect of bees upon grape-vines, fruit-trees, and fruit-bearing plants generally. One prominent apiarist goes so far as to insist that a few colonies of bees, judiciously placed, will revive a fruit farm from a non-paying to a profitable investment.

Field crops, scientists tells us, and wide-awake farmers know from their own observations, are greatly assisted by the honey-bee's manipulations. Indeed, their influence is required for the perfect floral fertilization of some of the cereal crops and the meadow-grasses.

Where the farmer is too busy to give his personal attention to the production of honey, it is suggested that he buy a few colonies and turn these over to the care of his wife and daughters. They will find the "pin money" accruing from the sale of the honey a convenient and pleasant return for the labor and time spent among the bees.

The out-door occupation, too, will prove a welcome and healthful change from the in-door drudgery, which they can afford to hire done.

Foundation and Separators—Mr. Eri Kelley, of Rochester, Mo., on March 30, 1892, sent the following questions, desiring Dr. C. C. Miller to answer them, which he has kindly done:

1. Would you advise any one to use full sheets of comb-foundation in brood-frames? If so, what grade?

2. Would you advise me to use separators for surplus cases? If so, what kind is the best—wood or tin?

Bees are in fine condition here, so far.
ERI KELLEY.

1. In reply, I would say that while some few prefer to have only starters in brood-frames, I think that the great majority are in favor of filling the frame full. If there were no other reasons, it would be sufficient to say that by means of foundation you can make sure of having your frames filled with worker-comb. Having drone-comb in a hive is rather expensive business, as it not only gives you just so much less worker-brood, but it gives you a lot of idlers, with good appetites, for the workers to feed. It is also very nice to have the middle wall of the comb hang right in the center of the frame, and if bees build their own comb, they are not at all sure to build it so. Indeed, they are likely to make it corrugated. If the frames are not wired, then use heavy brood-foundation. But I think you will find it to pay you well to wire the frames. In that case you can use medium, or even light brood-foundation, making the cost per frame considerably less. Of course, the thinner the foundation, the more it costs per pound, but a pound of thin goes a good bit further.

2. If you have only 1 or 2 colonies, and expect to use the honey all in your own family, then it may be well enough for you to do without separators; but if you expect to ship, or even if the honey is to be handled much at a grocery, then it is better to use separators. As to the material for separators, there has been no little discussion, some contending for tin, and some for wood. Both are right, for it depends upon circumstances which is best. I have used them by the thousand of both kinds, and have found tin entirely satisfactory where wood would be a failure, and *vice versa*. If separaare nailed on, as in wide frames, then tin is the thing, and means must be used to stretch it tight in nailing it on. A good plan is to have the frame fastened down with the top and bottom bar sprung together. This brings the end-bars nearer together, and, after nailing on the separator, when you release the frame, you will find the separator stretched as tight as a drumhead. If not stretched thus tight, then the tin will be wavy, and the sections on one side will be thin, while the other side will be bulged. But if separators are loose, as in T-supers, then the tin will not do at all, while wood will remain straight. But if the wood is nailed on, the swelling and shrinking that will occur, will make the wood wavy, in the other direction. So use tin for "fast," and wood for "loose" separators.—C. C. MILLER.

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Not Much Loss in the wintering of bees is anticipated in the locality of Mr. J. H. Andre, who writes from Lockwood, N. Y., as follows, on April 11, 1892:

It is hard to tell how the bees have wintered, for, notwithstanding the first of the month was like Summer weather for several days, bleak, snowy weather is here again. Probably the loss will not be great where the management has been good—in fact, I think it never is. I hear the usual cry of robber-bees, which either means careless work in the apiary, or a few bees without a queen, looking for a chance to fly away.

◆

Bulletin No. 3, of the Experiment Station at Pullmam, Wash., is received. It is a report of the Farmers' Institute held at Garfield, Wash., on Feb. 20, 1892. It gives the essays and discussions on "The Sugar Beet," "Farm Darying," "Wheat Growing," "Wind-beeaks," etc. A copy may be had by addressing Pres. Geo. Lilley, at Pullman.

"The Days of April."

"The days of April," they are sweet, so sweet,
Flushing with tender green the meadow ways,
Where June will dance with her gay, gladsome feet,
To music of a thousand warblers' praise.

"The days of April," they are fair, so fair,
With precious promise in the budding flowers,
Promise of days all radiant, fresh and rare,
Mellowed by gentle dews and fleeting showers.

"The days of April," they are green, so green!
And maple buds grow brilliant in the sun;
Golden the brookside with the cowslips' sheen,
And fragile wind-flowers steal out one by one.

"The days of April," they are dear, so dear,
To hearts grown weary of the Winter cold,
Longing for sunny skies all blue and clear,
For birds to pipe, and blossoms to unfold.

"The days of April," they are bright and coy;
But one glad April, years and years ago,
Held more of charmed hope and love and joy
Than all my life again can ever know.
—Isabel Gordon.

Queries and Replies.

Caging the Queen when Transferring.

Query 815.—I have some bees with valuable queens that I wish to transfer into a different frame. 1. Would it be better for me to cage the queens while I do the transferring, or let them take their chances with the bees? 2. If I caged the queens, would there be any danger of the bees killing them when I turned them loose?—North Carolina.

1. No. 2. Some.—James Heddon.

1. Yes, to cage her is safer. 2. No, if ordinary care is used.—R. L. Taylor.

1. Do not cage when transferring. 2. There would be some danger.—J. P. H. Brown.

1. Hardly necessary to cage. 2. Hardly, if bees are working well.—C. C. Miller.

If transferring is properly done, there is no danger for the queens.—Dadant & Son.

I have never caged queens when transferring, and in all of my experience I never lost one.—G. M. Doolittle.

1. Let them take their chances with the bees. 2. I think not.—J. M. Hambaugh.

Drive both bees and queens into an empty hive or box before you begin to cut out the combs.—Eugene Secor.

1. I have always "let them take their chances," and have lost none. 2. Not if caged with some of the bees, and among the bees.—A. B. Mason.

I should let them alone. I have transferred many colonies, and never knew a queen to be lost or injured with care. I think there is very little danger.—A. J. Cook.

1. If you begin your work rightly, you will have no trouble with your queens. 2. If you do not get the bees mixed, you are in no danger.—H. D. Cutting.

It would be a little safer to cage the queens, and if you let them run in with the bees when you shake back, there will be little or no danger of their being killed.—P. H. Elwood.

In transferring from one frame to another, there should be little risk of injuring the queen. It might be safer to cage her. There would be no danger in doing so.—J. A. Green.

1. It would do no harm to cage her, if you happend to see her, then she would be safe. If you do cage her, lay the queen among the bees to keep her warm. 2. There would be no danger.—E. France.

The only precautions required in transferring bees from one hive to another, is to prevent robbing. My book, "Bee-Keeping for Profit," and other standard works, give specific directions.—G. L. Tinker.

1. If you are a careful person, you can let the queens take their chances, if not, you would better cage them. 2. No, not unless you should let strange bees unite with the colony while you are transferring.—Mrs. Jennie Atchley.

1. No; drive bees, queen and all into an empty box, transfer the combs, and hive the bees on them like an ordinary swarm. But why not wait until June, and then transfer by the Heddon method?—C. H. Dibbern.

1. I would capture the queen before beginning the work, and as soon as some

of the frames are arranged in the new hive, I would put her into the new hive. 2. No, not if the transferring is done so as to keep the queens away from the bees but a short time.—G. W. Demaree.

1. If the transferring is done while honey is being gathered, there will be no danger in "letting the queens take their chances;" otherwise, it will be safer to cage them. 2. I do not think there will be any danger in turning them loose after transferring.—J. E. Pond.

1. I would leave the queen with the bees; if the combs are in frames you can put some of them into the new frames, hang them in the new hive, and shake the bees and queen into the new hive, or in front of it, and let them run in. 2. Not if you leave the cage among the bees.—M. Mahin.

1. Do the transferring when plenty of honey is coming in. As soon as a frame is filled with transferred comb, place it in the new hive. Keep a sharp watch for the queen, and, when found, let her run down between the frames in the new hive. 2. Usually, no; sometimes however, during a honey-dearth, they will kill their queen when disturbed for any purpose.—Mrs. J. N. Heater.

1. No; you have no occasion to cage the queen. Place a hive alongside of the one containing the swarm, and if you have a few frames of comb of the size you wish to use, lift out a frame with bees upon it carefully, and after satisfying yourself that the queen is not on that frame, with a soft brush-broom, brush the bees into the new hive; when you come to the frame containing the queen, she can be shaken or brushed carefully into the new hive with the bees.—Mrs. L. Harrison.

When Writing a letter be sure to sign it. Too often we get letters with the name of the post-office, but no County or State. One such came recently, and we looked into the Postal Guide and found there were places by that name in 13 States. Be sure to stamp your letter, or it may go to the dead letter office, in Washington, D. C.

The Amateur Bee-Keeper, by J. W. Rouse; 52 pages. Price, 25c. For sale at this office.

Topics of Interest.

Governmental Aid for Apiculture.

P. H. ELWOOD.

Apiculture is a branch of agriculture, and as such is entitled to the same fostering care extended by the government to other branches of the same occupation. As a pursuit it is a new comer, an "infant industry," and we should therefore expect it to be treated with exceptional favor. Instead of this, however, the 300,000 bee-keepers of this country have been almost wholly neglected.

There seems to have been enough money to spend on promoting the culture of silk, an article of luxury, but nothing for the production of honey, the most healthful sugar food in the world. Millions of dollars are freely offered for the production of cane sugar, an industury that needs the fatherly care of the government no more than does ours, if, indeed, it needs it as much.

Bee-culture is peculiarly important, because it saves a product that, unless gathered by the honey-bee, goes to waste; also because of the offices the bee performs in the fertilization of the flowers of fruits, grains, seeds, etc. These indirect benefits are probably quite as important as the primary work of honey gathering. We have now under Secretary Rusk, an effort by the government to protect us, for it has within the past year employed two able bee-keepers, Mr. Larrabee at the Michigan Agricultural College, and Mr. Frank Benton at Washington, to look after our interests.

This well-intended effort, however, is practically fruitless, since both of these men are under the direction of Chief Riley, of the Division of Entomology, who, no matter how distinguished as an entomologist, cannot be expected to know much about practical and scientific bee-keeping, not to be able to intelligently supervise the expenditure of money appropriated for experimental work in advanced bee-culture.

In proof of this assertion, notice the misdirection of the efforts of these two efficient men. Mr. Larrabee's time has been so fully occupied with the care and manual labor of the large Michigan College apiary as to leave him but very little time or energy for experimental work.

Mr. Benton, I judge, has a desk in some dark corner of the Division of Entomology, and he has no bees nor other facilities for practical work. He has had enough light and time allowed him, however, to prepare a bulletin, to be sent to farmers and others making inquiries as to how they shall commence bee-keeping.

Now, we do not need this kind of work at all, for we have plenty of hand-books and journals devoted to A B C instruction. What we need is advanced work—work that private individuals cannot perform because of expense, or lack of time or facilities for doing it. We do not care to have the government make any efforts to increase the number of bee-keepers until after it shall have made successful efforts to enlarge the markets for their products.

We hardly think that, in the fostering care the government extended to the cotton, iron, and other manufacturers, it ever became necessary to issue bulletins describing the best course for beginners to pursue in engaging in these occupations. The government can and should help us by making original investigation on the uses of honey in the arts and manufactures, and by collecting and disseminating information already known to the few, on these points; also by investigations as to the healthfulness of honey, by comparing its digestibility with that of cane sugar and other sugar and heat-producing foods.

The various diseases of bees, particularly the pest of foul-brood, should be investigated, and methods of treatment disseminated. The Canadian government has a foul-brood inspector, and also grants pecuniary aid to its national society for their efforts in promoting advanced bee-culture. Some parts of our country are said to be as badly afflicted with this contagious disease as is Canada; but we get no help, although it is expected that the Bureau of Animal Industry, a division of the Department of Agriculture, in charge of the diseases of domestic animals, etc., will call for an appropriation of one million dollars from the present Congress.

The important part the honey-bee performs in the fertilization of flowers should be so fully investigated as to make the results authoritative, and the report spread broadcast among farmers and fruit-growers. Bee-keepers now suffer serious loss from the prejudices of these classes who should be our strongest friends and supporters.

A number of disputed, as well as a number of undiscovered functions in the physiology of the honey-bee should be definitely established. It may be said that these do not concern the ordinary bee-keeper. Not so; for I have recently had occasion in practical bee-keeping to refer to several of the most obscure. An experiment apiary, conducted by so practical and skillful a bee-keeper as Frank Benton, ought also to establish many useful and important points in practical bee-keeping.

The different races of bees could be tested, and trustworthy reports made to their merits, without compelling a multitude of bee-keepers to invest of their hard earnings in making what are usually very imperfect tests. The trial of the so-called Punic bee by the bee-keepers of this country will probably cost thousands of dollars. Mr. Benton, with a few colonies of bees at his command, quite likely could have decided on their worthlessness at an expense of less than $25.

A statement has recently gone forth from one of our most distinguished State entomologists, Dr. Lintner, that it would be desirable for the destruction of certain insects that fruit-trees be sprayed with arsenical mixtures while still in bloom, and that he refrained from advising spraying at this time only because of the assertion of bee-keepers that it poisoned their bees.

The proof of this poisoning, while conclusive with bee-keepers, was not wholly so with Dr. Lintner (it is feared it will not be with fruit-growers), and he asked that conclusive experiments be made during the coming Spring. As the danger is imminent, and concerns the bee-keepers of many States, it would seem very appropriate that these experiments be conducted at Washington, and the results put into the hands of fruit-growers, so that, if we find it necessary to go into court, we may have proof that these untimely sprayers had knowledge of the crime they were committing.

It is not my purpose to discuss the merits of our system of governmental assistance; but it seems to me that, since other industries are reared and fattened at the government crib at our expense, we might now receive back a small percentage of the taxes levied on us for the maintenance of our older and stouter brothers.

Apiculture is now a section in the Dvision of Entomolgy; so at one time was ornithology; so was silk raising. Both have been raised to independent divisions. I leave it to any intelligent man whether our pursuit is not of more importance than either or both of these divisions. I should be glad to fortify my position with statistics, but, unfortunately, we have none. The census enumerator informed me that he had no place on his blanks for honey. The least that we can ask is, that the section of apiculture be raised to an independent division, and that it be put under the supervision of some practical bee-keeper like Mr. Benton, of sufficient scientific and executive ability to perform the duties of the office.

I want to emphasize the fact that we shall have nothing satisfactorily done until the work is in charge of a bee-keeper. To ask an entomologist to superintend this work is like putting a lawyer in charge of a hospital, with a corps of physicians doing his bidding. A first-class experiment apiary should be established at Washington. Mr. Larrabee, or some other good man, should be called in as an assistant; and a chemist, botanist, and other help should be at the service of the superintendent at all times. Bulletins should be issued to bee-keepers, giving results of work done, and also giving crop reports, gathered a thoroughness and exactness impossible with the private enterprise now collecting them.

Lastly, Congress should remember the blow they dealt us when they removed the duty on cane sugar, the chief competitor of honey, and provide liberal means for carrying on this apicutural experiment station in the most thorough manner possible.

The State of New York expends about $12,000 yearly on farmers' institutes; $40,000 on experiment stations, and $92,000 on the dairy commission. Bee-keepers help pay for all this, but get no benefit. In justice, the State ought to appropriate at least a thousand dollars to be expended under the direction of practical bee-keepers in holding one or more bee-keepers' institutes or conventions, and for other necessary work in advanced bee-culture. Other States should do likewise. Illinois has already set the example. Our country is so large that it is difficult to maintain a national organization. With State aid this could be made a delegated body, with the traveling expenses of delegates paid.—*Gleanings*.

Starkville, N. Y.

[For editorial comments, see page 536.—Ed.]

Experience with Italian Bees, Etc.

J. C. LILLIBRIDGE.

While the discussion of black *vs.* Italian bees is going on, I would like to give some of my experience with the latter. Different parties here have tried them at different times for the last 20 years, but they have been allowed to die out until I do not know of a colony at present within ten miles, if you except one that perhaps I have.

In the Fall of 1890 I bought a queen which produced very nice, gentle bees, but they died through the Winter.

Last Summer I bought another queen of one of our most noted breeders; she was a "tested" queen, but when her bees began to come out, oh, my! If the reader was ever a boy on a farm, who delighted in stirring up yellow jackets' nests, you can guess about how these bees acted. No, they were worse; for I always found that the yellow jackets would let me alone as long as I did them, but these bees are after me as soon as I go within ten feet of the hive, if they are flying. In color they range all the way from black to almost pure yellow.

I wrote to the breeder about them, but he says he only guarantees working qualities—not color or gentleness. But I am afraid I shall not be bothered with them any more, as they seem to have paralysis, or some other disease—large numbers coming out and dying on the alighting-board every time they fly. They have been so ever since they hatched.

If this is the way the bees of a tested queen act, the next time I shall order the cheapest hybrids I can get.

I can handle my blacks without smoke, veil or gloves, with very few stings. However, I am going to give the Italians a fair trial, as I believe they are the best, if I get them pure.

HONEY FROM BASSWOOD TREES.

Did the editor really mean to say in the foot-note on page 325, that basswood trees would bear blossoms in five years, and that "one tree should furnish enough honey for 3 or 4 colonies in a good season?" If so, they must be different than any we have. Here they do not blossom until (I think) about 20 years old; that is, in a natural state, and when sprouted from stumps. I have been at work in basswood timber more or less for the last 15 years, and have noted closely, but still I may be wrong. Let us hear from others on this point.

Port Allegany, Pa.

[Yes; the editor wrote advisedly. Basswood trees are rapid growers. We know of trees which furnish a profusion of bloom after being set out ten years. Young trees, 6 feet high when set out, have been known to furnish a *fair* amount of blossoms after five years, in favorable localities. During a good yield of basswood, colonies of bees will frequently pay for themselves in ten days. Basswood honey often comes like a shower, in good seasons, giving the bees all that they can do to take care of it.—Ed.]

How to Prevent Swarming.

G. W. DEMAREE.

When discussing this subject the temptation to argue the question, rather than to rely on a simple description of the manipulation resorted to, to accomplish the object in view, is very great. So many apiarists have imbibed the idea that some sort of contraction of the brood-nest is essential to the production of comb-honey, if not the extracted article, that any new discovery that runs counter to this idea of contraction meets a deaf ear, if not open opposition.

Let me say, once for all, that when a new discovery is applied to an old system, it often becomes necessary to revise the old system to accommodate it to the newly-applied discovery. These remarks apply not exclusively to the old system of bee-culture, but to all systems pertaining to all industries. Those persons who are determined to stick to the old paths of the past, are not in position to profit by any new discovery; and this essay is not written for that class of readers.

When your apiary is as large as you want it, what would you give to be able, by a simple, practical manipulation at the beginning of the swarming season, to hold all your colonies in full strength of working and breeding force steadily through the entire honey harvest? You can do it beyond a doubt, by practicing my new system of preventing swarming; and if you have the ingenuity to apply proper management to suit the *new condition*, your surplus yield will be larger than by any other method heretofore made known to the public.

I have practiced the new system largely for the past two seasons, and my surplus yield was never so large, though it is well known that the past two seasons were not above the average as honey-yielding seasons.

As I have already intimated, my plan of preventing swarming, and entirely preventing increase, is accomplished by one single manipulation right at the commencement of swarming. Only one hive and its outfit is used for each colony. Any system that requires a divided condition of the colony, using two or more hives, is not worthy of a thought.

In my practice, I begin with the strongest colonies and transfer the combs containing brood from the brood-chamber to an upper story above the queen-excluder. One comb containing some unsealed brood and eggs is left in the brood-chamber as a start for the queen. I fill out the brood-chamber with empty combs, as I have a full outfit for my apiary. But full frames of foundation, or even starters, may be used in the absence of drawn combs.

When the manipulation is completed, the colony has all of its brood with the queen, only its condition is altered. The queen has a new brood-nest below the excluder, while the combs of brood are in the center of the super, with the sides filled out with empty combs above the queen-excluder.

In 21 days all the brood will be hatched out above the excluder, and the bees will begin to hatch in the queen's chamber below the excluder; so a continuous succession of young bees is well sustained.

If my object is to take the honey with the extractor, I tier up with a surplus of extracting combs as fast as the large colony needed the room to store surplus. Usually, the combs above the excluder will be filled with honey by the time all the bees are hatched out, and no system is as sure to give one set of combs full of honey for the extractor in the very poorest seasons; and if the season is propitious, the yield will be enormous under proper management.

The great economy of this system is, all the colonies will produce as nearly alike as can well be—a condition of things that never occurs in any apiary swayed by the swarming impulse. If my object is fancy comb-honey, I tier the section-cases on the super that contains the brood, and push the bees to start all the combs they can; at the close of the season I extract the honey from the combs in the super, and feed it back to properly prepared colonies to have the partly-filled sections completed. The nicest honey in sections that I ever produced was obtained in this way.

To feed back successfully, requires as much experience as any other work connected with the art of producing honey, but the theme is too broad for a place in this connection.

The system above described works perfectly if applied immediately after a swarm issues. The only difference in the manipulation in this case is, that no brood or eggs is left in the brood-nest, where the swarm is hived back.—*Read at the Ohio State Convention.*

Christiansburg, Ky.

Making Double-Hive Bottom-Boards.

I. E. MYERS.

On page 293, in detailing my double-hive bottom-board, I stated the size as being 32x62 inches. This is not right; the size, not including the alighting-board, is 20x36 inches. The passage from one hive to the other is cut out of the top rim of the bottom-board. These rims are ⅝ of an inch thick by one inch wide, nailed on each end of the boards, the size of the hive being 16¼x18 inches, inside measure. This completes the department of the brood-chamber, and receives the body of the same, which is ¼ of an inch deeper than the brood-frames, making ⅜ of an inch for a bee-space under them.

On page 479, Mr. M. Miller says: "Thick top-bars are all that is claimed of them. But how about that exact spacing? Must we adopt close end-bars to get the exact space? Is not the cure worse than the disease?"

I will try to give the answer to the above query. Thick top-bars and rigid frames are my favorites, but not the close-end frames.

I make my frames half-closed and half-open end, in the following manner: Hold up a frame in your hand, with one end next to you. Take ¼ of an inch wide off the right side of the end nearest you, and ¼ of an inch off the left side, from the end away from you, so that on changing the frame end for end, it will show the diminished side always to the right.

Now drive four No. 9 double-pointed tacks crosswise on the side diminished, near the top and bottom, two on each end; this will fill the place of the wood planed off in the rigidity of the frame, and allow ¼ inch bee-space to save their bend in the manipulation of the brood-chamber, and save also lots of propolizing joints between the ends of the frames. For the same reason I hang the frames on a nail driven in the end of the top-bar, in place of letting the top-bar extend in on the grooved edge of the brood-chamber of the hive.

Grant, Minn.

Spring and Summer Bee-Management.

HENRY STEWART.

In treating this subject, I would make special emphasis of the great importance of always keeping ahead of your work, and the management for next Summer should begin in the Winter, in the way of doing all such work as the making of hives, filling sections, etc. Always be sure you are fully prepared for a good honey season long before it reaches you.

During the months of August and September I had the pleasure of traveling over several counties in Illinois, Iowa and Wisconsin in search of cheap honey. On this trip I visited more than a hundred prominent bee-keepers, besides many smaller ones, and in response to the question, "What did your bees do for you this season?" it would be astonishing to see how many answers would be like this:

"Well, we had a good flow from basswood, and we got lots of swarms, but we were so busy with other work that we could not give the bees the attention they needed, and we didn't get much honey."

Too many bee-keepers are like the Arkansas traveler's house—when it does not rain their house does not need shingling, but when the "honey-showers" come, they are in no condition for shingling.

Spring management should begin with the first warm days of early Spring. If bees are wintered in the cellar, a close watch should be kept over them, to know that they are resting quietly until the weather is sufficiently warm to put them out on the summer stands, when the hives should be cleaned out and the light ones, if any, marked for feeding.

If wintered out-of-doors, the first work should begin by ascertaining the condition of each colony in the apiary as to stores. This can easily be done by taking hold of the front of each hive and lifting it. If any light ones are found, they should be marked and examined carefully, and if in need of it they should be given food at once.

One of the great secrets of successful honey-producing is to have each colony of bees in a booming condition as soon as the honey-flow begins, and, with cheapness of sugar, I believe the subject of judicious feeding in both Spring and Fall management of bees to be a very important one, as it is a well known fact that with proper protection from the cold, and by feeding a few pounds of sugar, a very weak colony, with a good queen, can be brought up to a prime condition as soon as their services are needed.

FEEDING BEES IN THE SPRING.

I have seen and used several different kinds of feeders, but the simplest, cheapest and best feeder that I know, is simply this:

Prepare your hives for feeding by placing over the brood-frames an oil-cloth, pull it ahead so as to have an open space at the rear end of the hive, and on top of this place an empty super or extracting top. Now, take some small boxes, like cigar-boxes, wax the joints with hot wax and fill with syrup, and on top of this some pieces of broken sections for the bees to alight on, and place in the hives prepared for them. The entrance of all hives should be very nearly closed, and the greatest care should always be exercised not to excite robbing while feeding. For Spring feeding, prevent the heat of the cluster from escaping; the unused part of the super should be kept full of leaves, chaff or some other packing.

I winter my bees out-of-doors, snugly packed in rows, with Autumn leaves. I leave them in this shape until nearly the beginning of the white clover blossom, when I put them out on the summer stands, usually in a booming condition for the honey harvest, if it comes. At this season of the year no bee-keeper should be found without at least one set of sections or extracting tops already for the bees.

I will say but little about Summer management, save to emphasize the great importance of always keeping ahead of your bees, and working them for all there is in them, and this can only be done by some good system of tallying, frequent examinations, or watching the records of a scale hive. I consider this as almost one of the necessities of any well regulated apiary, as with it you have an accurate index to your business, and not guess what you are doing, and the amount of attention your bees are in need of.

Under Summer management comes a myriad of subdivisions, such as tiering-up of supers, frequent extracting, controlling of increase, location as to honey, source, etc., which I will not have time to even touch upon.

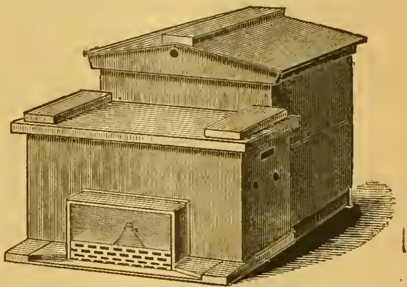
I will say, in conclusion, that, as the big crop of honey is where the profits come in in bee-keeping, study well your location and all the different managements, and adopt as yours those methods and fixtures which will give you the greatest number of pounds of honey in the best marketable shape.—*Read at the Eastern Iowa Bee-Keepers' Convention.*

Prophetstown, Ills.

The Drone-Trap as a Self-Hiver.

HENRY ALLEY.

On page 482, I mentioned that the drone-trap could be utilized as a self-swarm-hiver. I now present an illustration of the way the trap is arranged to self-hive swarms when they issue. The illustration represents a colony of bees with an empty or decoy hive directly in front, and a drone-trap attached ready to catch the queen, in case a swarm issues.



The Alley Drone-Trap Self-Hiver.

A self-hiver is worthless without some provision for trapping the drones and getting them out of the way of the work-bees. The drone-trap swarmer does this in all cases.

There are so many different styles of hives in use that it is useless to attempt to give directions for making bottom-boards that will apply to all the styles of hives in use. Almost any one has sufficient intelligence to make the proper arrangement for connecting the two hives.

All that is necessary, is to get the two hives as near together as possible, to save the bees the trouble of traveling too far to reach their brood-combs. This will be found quite an item in the course of the season.

As a large number of bee-keepers now have these traps, they, no doubt, will appreciate this new use of the drone-trap.

In arranging this device to catch a swarm, it is a good plan to put one brood-comb in the decoy hive. When the queen leaves the trap she will surely locate on the comb, and the bees, on returning to the hive after missing their queen, will readily find and make their home with her in the new hive.

If desirable to save the swarm, the bees should be removed to a new stand as soon as possible after being hived.

Wenham, Mass.

Rules for Judging Bees at Fairs.

THOMAS S. WALLACE.

I am like some of my fellow bee-keepers in regard to Mr. Robbins' theory of judging bees at Fairs. He claims that the three-banded bee should be the test, or, in other words, the finest marked bee. Now, I do not want to be understood that I condemn the three-banded bee at all, but if we can take the three-banded bee, and, by select and careful breeding, produce a four or five banded race, let us do it. We all try to improve all of our domestic animals. Look at the American horses, also cattle, hogs and sheep, in fact everything is improved that man has anything to do with, in the way of breeding and managing, from the horse down to the chicken.

Well, some will say that the four or five banded bees are worthless; that they will not gather much honey. Some will make one objection, and some another, but the main objection is because they have not got them. Why should their having a couple more yellow bands keep them from gathering as much honey as the three-banded race?

I have had some queens for the last two seasons that bred four and five banded bees, and I wish I had them all of that kind.

Condemning bees for having four and five bands, reminds me of what was said to me last Fall at the Sangamon County Fair, by a prominent bee-keeper. He asked, "Why are you breeding for color?" He intimated that he did not care for the color, it was the honey that he wanted. I saw an item in the AMERICAN BEE JOURNAL last Fall, stating that this man's bees had been moved to the river bottom, but they were so cross that he would have to leave them there until cold weather! I can move my bees in any kind of weather.

Suppose that we were to admit that the dark Italians, as some call them, or mixed bees, were to gather more honey than the four or five banded race (and then we would have to endanger our lives and everything around us to get it), would there then be any pleasure in bee-keeping? I think not, nor any profit either. But, on the other hand, I claim that the yellow bees will gather as much honey as the darker ones.

But there is one thing that I do know, and that is, some of the mixed bees have no sense at all.

Clipping the Queen's Wings.

MRS. L. HARRISON.

I have never practiced clipping the wings of queens, but I do not think it would injure their usefulness. I prefer a perfect queen, unmarred, with her gauzy wings lapped so neatly together over her back.

Where colonies of bees are located under large forest trees, it is often as much work to hive a swarm as they are worth. I know of an apiary thus situated, and the children watch them during swarming time, and as soon as they see a swarm issuing, they throw water on them to wet their wings, to keep them from clustering so high.

It would be well to clip the queen's wings in an apiary thus located. The swarm will issue all the same, and tumble to the ground in an effort to follow. A new hive can be placed where the one stood from which the swarm issued, and the queen put into it. As soon as the bees miss her, they will return to their old stand, and on entering the hive, find her and remain. If so desired, the hive can then be placed upon a new stand, and the old hive returned to its former place.

When a colony containing a clipped queen has swarmed several times, and returned, and the clipped queen crawls back into the hive, the bees become angry, and sting her to death, and rear another one which can follow them.

When the queens are clipped, the grounds surrounding the hives should be kept very clean and smooth, so she can readily be seen. If it is in grass, she might be stepped on.

No queen's wings should be clipped until fertile, for if they are, they cannot go out to meet the drones; all the eggs they lay will produce only drones, and the colony in time will die out, and the moths get the credit of destroying it. The queens can be clipped in the Spring when there are but few bees, so they can readily be seen. Some clip them when they are upon the comb, with a tiny sharp pair of scissors; others hold them by the shoulders, between the thumb and forefinger of the left hand.—*Orange Judd Farmer.*

The Grading of Comb-Honey.

GEO. R. WELLER.

The grading or classification of comb-honey, to be a success, must suit all localities, and work injustice to none. It must please dealers as well as producers, enable the latter to receive the best price possible, for whatever kind they have to sell, and the former to dispose of the different sorts with the least trouble, and yet give the best satisfaction to consumers.

The classification should give no information to the uninitiated. Many who would otherwise buy satisfactorily will not do so, if there is any mark to indicate that it was not the best. Let every crate be sold on its merits as honey, aided only by the attractiveness with which it is put up and displayed. The classification is solely to expedite business between producer and seller.

Three classes, of three grades each, seem to cover the ground, designated thus:

1. Class W, or white honey. 2. Class A, or straw-colored honey. 3. Class D, or dark honey.

Each class then should be divided into three grades, designated as follows:

Grade P, or perfect honey. Grade S, or satisfactory honey. Grade I, or imperfect honey.

There will not be a great deal of grade P—most of it will belong to grade S; the remainder to grade I.

Any one "posted" will know at a glance what is in a crate. Class D, grade S, very good, dark honey. Class A, grade P, the best straw-colored honey. Class W, grade I, low grade of white honey; and so on. A glance indicates the most important characteristic of honey—color—and tells also its condition. There are no adjectives, significant figures, XX's, etc., to embarrass the consumer.

To suit individual producers, or localities, the source can be stenciled on, as Buckwheat, White Clover, Golden-Rod, Basswood, etc., or adjectives used, as fancy, superfine, extra select, XXX, etc., in all cases being the individual or private mark of the producer or dealer, like his name, and bringing like it, what they are worth—no more.

The specifications of each grade should be plain, concise and simple. Grade P should contain nothing but sections about perfect. Certain consumers would willingly pay extra for it, for use on special occasions.

Grade S should contain all sections not faulty in some essential respect; while grade I would go to those to whom appearance was secondary to price.

All classification and grading done by marks indicative of quality will fail, because the temptation to use a higher mark to indicate a lower grade in order to obtain a better price, is irresistible. This is true of everything offered for sale.

This classification is for business; clastic enough to fit anybody, and broad enough for everybody to stand on. On top of it every man can "blow his own horn" on his crate, or otherwise, as he thinks will pay best.

When honey is specified as being of a certain class and grade, its appearance and condition are known; its quality must be made known by sample, or the producer's reputation

Practical use will soon indicate if additional grades or sub-grades are needed. These are plenty to begin with.

Berlin, Mo.

Black Bees vs. the Italians.

P. D. JONES.

I bought my first colony of bees in the Spring of 1848, paying $8 for them, and have had bees every year since then. I have had a great many hours of pleasure in looking after them, and taking off the tons of honey that I have sent to market. I have made bee-keeping a study all my life, and I am learning yet.

I have 200 chaff-packed hives, and a few others that I use in case of necessity. I aim to keep them all full of bees, but the last two seasons have been so poor that I now have several empty hives.

I have been a reader of the AMERICAN BEE JOURNAL since 1871, and have read much that I can endorse, and much that I cannot. I cannot endorse all that is said in favor of the Italian bees. I have had them for 23 years. I bought my first queen of a queen-breeder, warranted pure, and paid $5 for her. I introduced her to the blacks in September all right; when June 1 came, the next Spring, I had as many black bees as yellow ones.

The next August I got 15 queens at $2.50 each, all pure, and have had Italians ever since. I often see it stated that they will work on red clover when black bees will not. Now I will give my reasons for not believing that.

A number of years ago, when I had Italianized my whole yard, I think that I had a fair chance to test them. The latter part of Summer, about 100 rods south of my yard, was a field of June clover in its second bloom. There was no bees west, nor east, for a long distance (unless by chance a swarm in the woods), and no woods nearer than half a mile.

South of the clover field, about 150 rods, were 7 colonies of pure Italians. There was but one colony of black bees between the yard of 7 colonies and my yard. I went to the field myself to see the Italians work on red clover, expecting to see them with their long tongues taking out the honey almost by spoonfuls; but what was my astonishment to find 19 out of every 20 bees on that clover field black bees, by actual count, no guess-work about it! Was that not a "stumper?" How could any one expect me to believe in the superior working qualities of the Italians after that, or rather, as their advocates claim they have.

I have had some ups and downs in the many years that I have kept bees, when the diarrhea raged so badly all over the country; I lost heavily, some Winters nearly all, but I would buy again in the Spring. I have paid as high as $65 for Italian queens in a single season, but have never found them to be as good for comb-honey as the blacks; their combs are so dark that I have had to crate the first quality of honey in with the second grade, on account of its dark appearance.

As to their looking out for themselves for Winter stores, I find that I have to feed them as often as I do the blacks. For comb-honey in sections, I consider one colony of blacks equal to two of Italians; still, they are not without some good qualities. I can find their queen in less time than it takes to find a black one; they adhere to their combs better, and do not run about so much.

I also think that, as a general thing, Italian bees are better-natured than the blacks; still, there are exceptions to them. The crossest colony of bees that I ever saw were Italians; you might go into the yard and point your finger at them, and then go, and take the consequences, which would not be very pleasant.

My experience with the Italians has been somewhat different from others that have kept them. I have often read and heard it said, that the dark or leather-colored were the best for comb-honey in sections. In the Fall of 1889, I bought a few queens to supply some queenless colonies; they were what are called "cheap" queens—too dark to put upon the market; but they produced the lightest colored bees that I ever had in my yard, and were the best honey gatherers. They came the nearest to the blacks of any that I ever had. If I have any queenless colonies next Fall, I shall call on the same breeder to supply me.

I do not wish to write, or say anything that will get up any unpleasant controversy, but I shall always vote for the black bees, until I find something better.

Ridge, N. Y.

Removing Pollen from Combs.

G. M. DOOLITTLE.

In many sections pollen is stored so largely by the bees that the combs become nearly solid with it. Where more is stored than is wanted in brood-rearing a good way to remove it is to take two quarts of boiling water and one pound of honey, shake this up together, put in a sprinkling pot and sprinkle both sides of the combs. Now put them in an old hive in a warm room, leaving them there until fermentation takes place, which will throw most of the pollen out. Sprinkle and rinse with warm water, shake the water off and hang them in the hives at night, one in each strong colony, when they will be all clean and bright the next morning.—*Rural Home.*

☞ **Subscribers who do not receive their papers promptly, should notify us at once.**

CONVENTION DIRECTORY.

Time and place of meeting.

1892.
May 5.—Susquehanna Co., at Brooklyn, Pa.
H. M. Seeley, Sec., Harford, Pa.

May 12.—Connecticut, at Hartford, Conn.
Mrs. W. E. Riley, Sec., Waterbury, Conn.

May 17.—Northern Illinois, at Harlem, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

May 28.—Haldimand, at Nelles' Corners, Ont.
E. C. Campbell, Sec. Cayuga, Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—The Editor.

North American Bee-Keepers' Association

President—Eugene Secor..Forest City, Iowa.
Secretary—W. Z. Hutchinson....Flint, Mich.

National Bee-Keepers' Union.

President—James Heddon ..Dowagiac, Mich.
Sec'y and Manager—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Not One Colony Lost.

I have 40 colonies of bees, and they have all wintered well, and are in excellent condition. I have not lost a single colony. I winter my bees on the summer stands, placing an outside protection of boards about each hive, packing the space between the hive and the the outer protection with dried Autumn leaves. Henry La Rue.

Athens, N. Y., April 8, 1892.

Four and Five Banded Bees.

In reference to the four and five banded Italian bees, I do not know who was the first to produce them, but one thing I do know, and that is, I had about half dozen queens that bred four and five banded bees in the Spring of 1890. The next Winter or Spring Mr. Timpe offered such for sale. Since that time I have heard of a number of others that have them. Who was the first to produce them, I do not know. I have them, all the same, and I did not get them from any one else.

Thomas S. Wallace.

Bees in Central Iowa.

Bees that were wintered out-of-doors on the summer stands have come through so far with scarcely any loss. Those wintered in cellars and repositories are from ¼ to ⅓ dead; and their hives look as if they had come out of some barnyard heap. But there are about 90 per cent. too many bees in this part of the world yet; 15 colonies fed on sugar stores died in the cellar before Christmas, and one colony fed on white clover honey lived until March 10. To-day is April 8, and O what a day it has been! I have just been down into the cellar and covered the potatoes with blankets to keep them from freezing tonight. If it keeps on getting colder, as the sun travels north, by the time it gets up to the Tropic of Cancer, bees, people, animals, trees and everything will have changed into solid ice. We can only hope for one thing more—that the sun may change its course and travel south. W. P. Faylor.

La Porte, Iowa.

Bees Did Well Last Year.

High winds in this locality make it bad for bees located far from timber. Bees near timber usually do well, if cared for, but most people here are of the "slip-shod" kind. My bees did finely last year, storing 71 pounds per colony, of comb-honey; but I do not expect as big a yield this season, although my bees are in fine condition, and number 30 colonies. A. E. Jameson.

Weeping Water, Nebr., April 6, 1892.

Unfavorable Wintering of Bees.

As the Winter may be said to be over, my Winter and Spring report may be in order. I use the 8-frame Simplicity-Langstroth hive. I adopted this size of hive for comb-honey, at the suggestion of an eminent comb-honey producer. As it is used with flat cover, I do not like it. It is too small to winter bees successfully. It is still worse adapted to weak colonies in Spring. I put away 50 colonies in fair condition as to strength. Two months from the time they were put into the cellar, they *had* to be put out, no matter how the north wind raved, no matter how the night behaved. I never saw such a sickly lot of bees—every colony was badly diseased. The smell was exceedingly offensive. The temperature of the cellar ranged from 40° to 50°—not too low, nor certainly too high. To-day I have 4 feeble, sickly remnants of colonies left. Some hives had tight bottoms, some were removed; some had packing above, others none; some were left without anything above, just the naked frames, not a cover. All fared about alike. From the time they were put out they had several good flights, to be sure. At such times I would feel hopeful, but they kept getting smaller and beautifully less.

JAMES HAMILTON.

Beason, Ills., April 11, 1892.

Favorable Spring.

As a rule, bees have wintered well in this locality. My own results were poor, owing, I think, to my cellar being too damp. I lost about 30 per cent., caused by diarrhea, although all uncapped honey was extracted last Fall. Does it not seem to be more the conditions of wintering than poor food, that causes this trouble? Bees seem to have wintered better out-of-doors this Winter. So far the Spring has been favorable; brood-rearing is nicely under way, and willow and poplar are in bloom.

C. A. MONTAGUE.

Archie, Mich., April 7, 1892.

Wavelets of News.

Water for Bees.

Persons owning bees, and not located near streams of water, should furnish them fresh water daily, as it will save time which, to the bee, means honey, as it means money to a person. The way they frequent wells and cisterns shows that they prefer water fresh to stale, and they appear to enjoy sipping it from gravel and sand.

I have used milk-crocks filled with gravel and sand, but, on the whole, prefer wooden kegs with cloth put in them, hanging over the sides, acting as syphons. The bees sip water from the sunny side of the kegs. The kegs should be washed out frequently, and one should be a little brackish, about a teaspoonful to a pail of water.—*Exchange.*

Seasonable Hints.

Look out for those weak colonies when you take your bees out of winter quarters this Spring. All such should have the entrance to the hive contracted so that the bees can more easily guard themselves from robbers, and also to keep the hive warmer. Remove the frames not occupied by the bees, and put in division-boards close to the frames left in the hive, cover the frames with some kind of cloth, and be sure that the covers of the hives are tight, so as not to leave any draft through the hive.

Every bee-keeper should prepare for a large honey crop the coming season. Get plenty of everything ready beforehand, then when you need it you will have it ready to use. It is better to have a few hundred sections left unused at the close of the season than to lack 100 during the honey-flow. Leave nothing undone that will aid in getting the honey while it lasts, for the season is short, and the one who is not ready for the honey-flow is the one that "gets left."—J. W. BUCHANAN, in the *Western Farmer.*

Keeping the Queen in the Hive.

Neither clipping the queen's wings, nor any other advice to prevent her from leaving the hive will prevent swarming. It is not the queen that urges out the swarm. Bees will swarm whether the queen can leave the hive or not. The plan of clipping the wing of the queen, and all devices to capture the queen when a swarm issues, are only useful as helps to lessen the labor of managing the swarming nuisance. I prefer the plan of clipping the wing of the queen, to any of the devices yet brought to light. The swarming desire must be satisfied, if bees are expected to work and store honey.—*Michigan Farmer.*

Spiders in the Apiary.

I used to make war on them. Sorry to own it, but I formerly killed every one that I could. Ugh! the ugly things! How horrid! They might bite me. But I have repented in sackcloth and ashes. We have kissed and made up, and now we are the best of friends. I catch every one I can and carry it to a hive containing unoccupied combs, and put it in. You see our good friend Father Langstroth ("may his shadow ne'er grow less") called our attention to the fact that the spiders keep all the moth-worms from combs. Where the mother spider has her home, the moths cannot flourish. I sometimes take their eggs encased in a downy web, and place them into a hive of unoccupied comb, to live and flourish.—MRS. L. HARRISON, in the *Prairie Farmer.*

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Supply Dealers desiring to sell our book, "Bees and Honey," should write for terms.

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We Club the American Bee Journal and the Illustrated Home Journal, one year for $1.35. Both of these and Gleanings in Bee Culture, for one year for $2.15.

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If You Have any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time.

◆

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◆

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HONEY AND BEESWAX MARKET.

CHICAGO, Apr. 16—Fancy white comb selling at 16c.; other grades 10@14c. Extracted slow demand, 6½@7½c. Beeswax, 26c.
S. T. FISH & CO., 189 S. Water St.

NEW YORK, Apr. 16.—Little demand. sufficient supply. We quote: Fancy white 1-lbs., 13@14c.; off grades, 11c.; buckwheat, 9c.—Extracted, California, white clover and basswood, 7@7½c.; Southern, 65@70c. per gallon. Beeswax, very scarce at 28@29c.
HILDRETH BROS. & SEGELKEN,
28-30 West Broadway.

KANSAS CITY, Mo., Apr. 16.—Demand light, supply large. Prices: No. 1 white comb, 13@14c.: No. 2 white, 10@12c. Extracted, white, 6@7c.; amber, 6@6½c.; dark, 5c. Beeswax—Demand good, supply light. Price, 22@27c.
CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI. Apr. 16.—Demand is slow for comb with good supply. Price, 12@15c. Demand for extracted is fair at 5@8c.

Beeswax is in good demand, at 25@27c for good to choice yellow.
C. F. MUTH & SON,
Cor. Freeman & Central Aves.

NEW YORK, Apr. 16.—Demand for honey is very moderate, supply good, exceeding the demand. There is little demand for fancy 1-lbs. Market pretty well cleaned up of that grade, but plenty of fair. Prices: Comb, clover, 8@12c.; buckwheat, 7@9c. Extracted, clover, 6½@7c.; buckwheat, 5½@6c. Beeswax—Demand fair, supply plenty for demand, at 27@29
CHAS. ISRAEL & BROS., 110 Hudson St.

KANSAS CITY, Mo., Apr. 16—Demand poor. supply light of comb. Fancy 1-lbs., 12@13c.; dark, 8@9c. Extracted, white, 7c.; dark, 5@6 No beeswax on the market.
HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, Apr. 16.—The demand is slow, and supply fair, and will be absorbed by time new crop comes. Comb, 11@12½c. Extracted, 7@8c. Beeswax—Demand moderate, supply fair; price, 27@28c.
M. H. HUNT, Bell Branch, Mich.

CHICAGO, Apr. 16.—Demand fair and supply short on fancy stock. Comb, 14@15c. Extracted, slow sale at 6@7c. Beeswax—Demand good, supply short on prime yellow; price, 25@28c.
J. A. LAMON, 44-46 S. Water St.

MILWAUKEE, Apr. 16.—Demand very moderate, supply average of all grades but common quality. Best 1-lbs. 15@16c; common, 12@13c. Extracted, white, in barrels. 7c.; in kegs, 7½c; in pails. 7½@8c. Beeswax—demand fair, supply small. Price, 23@28c.
A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO, Apr. 16.—Demand light, supply about exhausted. Comb, 1-lb., 10@12c. Extracted, 5¾@6¾c. Beeswax, in light supply and good demand, at 25@27c.
SCHACHT, LEMCKE & STEINER,
16 Drumm Street.

NEW YORK, Apr. 16.—Demand moderate, and supply reduced, with no more glassed 1-℔ nor paper cartons, 1-℔. We quote: Comb, 1-℔, 14@15c. Extracted—Basswood, 7¼@7½c; buckwheat, 5½@6¼; Mangrove, 68@75c per gal. Good demand for dark extracted honey. Beeswax, in fair supply, with small demand, at 26@27c.
F. G. STROHMEYER & CO., 120 Pearl St.

CHICAGO, Apr. 16. — Demand is slow, supply fair, but not excessive, and market should clean up. Prices: Comb, 15c. is about the top. Extracted, 6, 7@8c.; supply small. Beeswax—Demand good, supply better than last season. Price, 27c. for yellow.
R. A. BURNETT, 161 S. Water St.

BOSTON, Apr. 16.—Demand is light, supply fair. We quote: 1-℔. fancy white comb, 13@15c; extracted, 6@7c. Beeswax—Demand fair, supply light. Price, 28c.
BLAKE & RIPLEY, 57 Chatham St.

MINNEAPOLIS, MINN., Apr. 16.—Demand is moderate, supply of dark is large, but white is not so plentiful. Prices: Dark comb, 10@13c.; white, 15@17c. Extracted, supply plenty. Beeswax—Demand good, supply small.
STEWART & ELLIOTT.

NEW YORK, Apr. 16.—Demand is light, and supply large, except buckwheat comb. We quote: Fancy white comb, 12@14c; buckwheat, 9@11c. Extracted—Clover and basswood in good demand at 6½@7c; buckwheat ind emand at 5@6c. Beeswax in fair demand at 26@28c.
F. I. SAGE & SON, 183 Reade St.

ALBANY, N. Y., Apr. 16.—Demand is very little for comb at 8@12c. Market quiet. Extracted, 6@7c. Beeswax in good demand at 28@30c. for good stock.
H. R. WRIGHT, 326-328 Broadway.

The Convention Hand-Book is very convenient at Bee-Conventions. It contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with Subjects for Discussion. In addition to this, there are about 50 blank pages, to make notes upon, or to write out questions, as they may come to mind. They are nicely bound in cloth, and are of the right size for the pocket. We will present a copy for one new subscription to the BEE JOURNAL (with $1.00 to pay for the same), or 2 subscribers to the HOME JOURNAL may be sent instead of one for the BEE JOURNAL.

Calvert's No. 1 Phenol, mentioned in Cheshire's Pamphlet on pages 16 and 17, as a cure for foul-brood, can be procured at this office at 25 cents per ounce, by express.

Get a Binder, and always have your BEE JOURNALS ready for reference. We will mail you one for 50 cents.

Busy Bees, and How to Manage Them, by W. S. Pouder. Price 10 cents. For sale at this office.

THE AMERICAN BEE JOURNAL
CIRCULATES
ALL OVER THE WORLD.
PUBLISHED BY
THOS. G. NEWMAN & SON,
CHICAGO, ILL.

ONE DOLLAR PER YEAR.

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THOMAS G. NEWMAN, EDITOR.
GEO. W. YORK, ASSISTANT EDITOR.

Vol. XXIX. April 28, 1892. No. 18.

Editorial Buzzings.

I May Not Triumph in success,
Despite my earnest labor;
I may not grasp results that bless
The efforts of my neighbor.
But though my goal I never see,
This thought shall always dwell with me—
I will be worthy of it.

◆

Up in the Mountains, near Falling Springs, Calif., raspberries bloom in December, at an elevation of 4,000 feet above the sea level.

◆

Dr. J. W. Vance, of Madison, Wis., editor of the apiarian department of the *Wisconsin Farmer*, has just returned from visiting in Indiana, Ohio, Washington, D. C., and Philadelphia. Our faithful friend and co-laborer reports the trip as being one of the most enjoyable events of his life. Mrs. Vance accompanied the Doctor, thus helping to enjoy the refreshing and rejuvenating vacation.

Mr. T. L. Byers, of Monroe, Iowa, died suddenly on April 11, 1892. He was found on the road as he was driving home, about seven miles from his residence. Death, which must have been instantaneous, resulted from a rupture of the valves of the heart. Mr. Byers was about 60 years old. He was a skilled apiarist, and the leading honey-producer of the locality where he lived for years. He kept 300 to 350 colonies of bees, and shipped his honey to market by the carload. In his sad death, the bee-fraternity of Central Iowa loses one of its best and most genial members. The BEE JOURNAL desires to express its heartfelt sympathy to those who were thus so unexpectedly called upon to mourn the loss of a loved one.

◆

Bee - Paralysis is becoming so common of late that it threatens to be quite a serious affair. From quite a number of sources comes the report that common salt is a specific remedy. Mr. Ernest Root says that in the home yard, where the grass was kept down with salt, no cases appeared, while in the out yard, where no salt was used, there were two cases. I have almost always kept the grass down with salt in front of my hives, and have never had a case in my apiary.—*Review.*

◆

Children have very queer ideas of the actions of their elders; sometimes they are not far wide of the mark, however. Here is a case in point that can be appreciated by all honey-folks:

"Did you hear the news, Katie?" asked the little girl of another.

"No," was the reply.

"Well, my Uncle George and his wife are going to Delaware on their *honey-comb.*"

◆

Whenever you find any one advertising to sell articles below their value (unless damaged or out of date) it is very evident that the article is an inferior one. First-class goods always command their full value in any line.

How the Bees have wintered is a matter of much interest to bee-keepers just now. *Gleanings* has sent out questions to many apiarists all over the country, asking, among them, about the condition of the bees at present. Here is what the editor says concerning the replies, in *Gleanings* for April 15:

> In response to our call for reports as to how bees are wintering throughout the country, about 200 bee-keepers have, up to date, April 12 responded. The reports show that bees, with very few exceptions, have wintered exceptionally well. About a third of the number report no loss, and the remaining two-thirds show from 95 to 98 per cent. as the number that have wintered. There are only three or four who report below 60 per cent. The losses, where they have occurred, have been principally in Iowa, Western Illinois, and Northern Michigan.
>
> In answer to the second question, "How does their condition compare with former years?" most of them report "much better."

◆

Kind Words seldom are unappreciated. Ever since the Editor mentioned his contemplated vacation for rest and recuperation of tired nerves and wasted energies, expressions of kindly sympathy have been received, both from bee-keepers and the bee-publishers. Those who have thus so pleasantly and sincerely written, may feel assured that their kind words will be much appreciated, and will help to encourage the recipient to renewed efforts, and inspire him with fresh zeal in the cause for which he has so long battled. We wish here to record some of the many words of sympathy and esteem that have been uttered.

The first, from Prof. A. J. Cook, of the Michigan Agricultural College, is as follows:

> I am pained to hear that you are ill. I hope the rest, which is surely needed and earned, will wholly restore you. I wish you could go to California. You would find many friends, and a very hearty greeting.
>
> Yours with full sympathy,
> A. J. COOK.

The following, addressed to Mr. Alfred H. Newman, junior member and Business Manager of the firm, came from Messrs. Chas. Dadant & Son., the well-know manufacturers of comb-foundation:

> We are very sorry to read in the BEE JOURNAL, of your father's condition of health. He has all our sympathy. We have been so long acquainted with him and you, and the old AMERICAN BEE JOURNAL is so much "one of the family," that we take a deep interest in all that concerns the firm of Thomas G. Newman & Son.
>
> Wishing him better health, and yourself a busy season, we remain,
> Yours truly,
> CHAS. DADANT & SON.

Mr. R. F. Holtermann, of Brantford, Ont., Canada, says:

> I am very sorry to learn about the state of your health. The AMERICAN BEE JOURNAL fills a place in the apicultural world no other periodical does, and a very necessary place.

Mr. J. W. Tefft, of Buffalo, N. Y., wrote thus:

> You have my heartfelt sympathies in your affliction......I trust your vacation will restore you to vigorous health.

In the Apiary Department of the *Wisconsin Farmer* for April 9, Dr. J. W. Vance, the able apicultural editor of that paper, says:

> We learn that the senior editor of the AMERICAN BEE JOURNAL, Mr. Thomas G. Newman, is contemplating indulging in a rest—a "short vacation." We congratulate him upon the opportunity to break away from his post of duty, which he has so long, so ably, and so faithfully filled.

Bro. Root, in *Gleanings* for April 1, expresses his regret and sympathy in this much-appreciated editorial item:

> We regret to learn that Bro. Newman, of the AMERICAN BEE JOURNAL, has been quite unwell of late, as a result of the grippe, and that it will be absolutely necessary for him to take a vacation of a month or six weeks. In the meantime, an old employe, Mr. G. W. York, will take charge of the BEE JOURNAL. *Gleanings* sincerely hopes that the much-needed rest will restore him to health.

Bro. Hutchinson, the earnest and cordial editor of the *Bee-Keepers' Review*, who is always *reviewing* things and matters of interest to the apicultural world, had the following to say in his April issue of his paper:

> Bro. Newman has suffered so severely from *La Grippe* and over-work that he has been obliged to take a vacation. While he is away the editoral work will devolve upon Mr. G. W. York, who has been for years a valued assistant in the JOURNAL'S office. I have the pleasure of a close, personal acquaintance and friendship with Mr. York, and I know of no one better fitted to fill Mr. Newman's place while he is away resting those tired nerves. May he come back refreshed in mind and body, is the wish of all.

We know that Mr. Newman will fully appreciate the kindliness of feeling on the part of all of the foregoing who have so cordially and sincerely written; and his assistant, the writer, also desires to thank both *Gleanings* and the *Review* for their pleasant reference to himself. During the Editor's absence we have endeavored to perform the editorial duties, and to sustain the reputation of the BEE JOURNAL. How well we have succeeded, the readers may judge for themselves.

Bee and Honey Statistics are always interesting to apiarian readers; but it is so seldom that any sufficiently reliable can be obtained so as to be of special value. We trust that the day is not far in the future when statistics that will be correct, and hence helpful, may be at hand to show at any and all times the magnitude of the apiarian interests of the world.

We are often requested to furnish statistical information relating to bee and honey products, but on account of the insufficient importance in which the pursuit is considered by most governments, it is quite impossible to give anything like a satisfactory showing when called upon to do so.

We cannot vouch for the reliability of the following statistics of the world's honey-producers, but offer them just as we have them, taken from the *Californian*:

> The largest bee-keeper in the world is Mr. Harbison, of California, who has 6,000 colonies, producing 200,000 pounds of honey yearly. In Greece there are 30,000 colonies, producing 3,000,000 pounds of honey; in Denmark 80,000, producing 2,000,000; in Russia 110,000, producing the same; in Belgium 200,000, producing 5,000,000; in Holland 240,000, producing 6,000,000; in France 950,000, producing 23,000,000; in Germany, 1,450,000, and in Austria 1,550,000, each producing 40,000,000 pounds of honey. But in the United States there are 2,900,000 colonies, belonging to 70,000 bee-keepers, and producing 62,000,000 pounds of honey yearly.

Bulletins from the various Agricultural Experiment Stations of the United States are becoming quite numerous. It seems that they should serve as great awakeners of enthusiasm among those interested in agricultural pursuits. The National and State Governments do well to thus encourage investigation and experimentation along lines which interest such a large percentage of our population. At no distant day, we expect to chronicle the results of Bulletins devoted to the industry of apiculture, which, were bee-keepers in the possession of their rightful recognition, would now be appearing, to create a greater development of our pursuit.

Bulletin No. 39, issued by Purdue University Agricultural Experiment Station, of La Fayette, Ind., is received. It treats exhaustively of "Field Experiments with Corn;" "Sugar Beets;" and "Diseases of the Sugar Beet Root." A copy can be obtained by addressing the Station.

Queenlessness may be determined by opening the hive and noticing the actions of the bees. If they are running over the frames as if in search of something, or as if they were lost, you may reasonably conclude that they have no queen.

Human Enemies of the bees and their keepers are not all dead yet. They still continue to exhibit their malicious and diabolical natures by endeavoring to prohibit the keeping of bees wherever they fancy they should not exist. Often, or almost invariably, this opposition is inspired by jealousy or spite on the part of the aggressors, and those who keep the bees must either fight for their constitutional rights, or "move on" with their bees to some distant field.

The National Bee-Keepers' Union has successfully defended its members in nearly every case which it has undertaken to assist. The Union has a bright record, and did bee-keepers but appreciate what it has done, and can do, for them in sustaining their rights and privileges in their chosen pursuit, we think they would all flock to its standard, and enlist their influence and dollars in its and their own behalf.

We have received a long letter from Mr. H. D. Davis, of Bradford, Vt., dated April 12, 1892, in which he explains fully the trouble in which he is now situated, and asks what the Union can do for him. He is not a member of the Union, and hence, of course, has no claims upon it for assistance. But before commenting further, we will present his story, so that the readers may understand the unpleasant position of their fellow bee-keeper:

I have endured great annoyance from malicious parties of this town who dislike me for a position I once took to aid in closing the liquor dens of this place, and, once having taken an honest position, I will not back down for the pleasure of any liquor-dealer, drinker, or their apologists. These rummies have frequently come upon my premises and destroyed bees, hives and honey, by overturning the hives and rolling them down the bank.

I have some 400 colonies of bees, and keep from 75 to 100 of them on my home place, which is just within the limits of the village (said village having secured a charter in January, 1891). My place is about a half mile from the center of the village, and adjacent to the main street. The land runs back level from the street for about 75 feet, and then rises to a height of about 50 feet above the highway, the top of the bank being about 175 feet back from the road, which, in front of my place is about 50 feet higher than the main street of the village proper.

Ranged on terraces on the upper part of this bank (some 400 feet in length) are about 250 hives, all of which at present contain bees, but, as I said before, I keep only 75 to 100 colonies here in the working season, as the balance are some I brought home to winter from an out-apiary which I discarded last Fall.

They are located so far above the street that when flying they pass above the roofs of the neighboring houses. When there were but few bees, I used to have them on the level piece, but feared some accident, so I moved them up to the top of the bank. I have never known of any animals being stung, though the cows and sheep of my nearest neighbor (who is the principal promoter of the constant fusillade kept up against me) have been repeatedly turned out to feed in my bee-yard and garden, to my serious annoyance; and I have never known of but one person being stung—a woman, who admitted that it was due to her own carelessness in hastily crushing the bee when it alighted on her.

This nearest neighbor dispenses annually a vast quantity of cider, and therefore has a powerful influence with the rowdy drunken class which he uses as tools for doing his filthy work, and, as he is extremely vicious and malicious himself, nearly all who do not fall in with his views, dare not say anything contrary, for fear of his injuring them.

A year ago this man drew up a petition to the village officers to compel the removal of my bees from town as a nuisance, and secured 40 signers thereto; but it seems that the officers dared not take up the matter then, as the village by-laws were not broad enough to include bees as a nuisance. So there has been a warning just issued for a village meeting, on April 20, to change the by-laws so as to include bees as a nuisance.

You can readily see that their purpose then is to compel me to remove my bees. In view of this will you kindly advise me what action, if any, I can take; also what decisions have been rendered on test cases of this nature, if such there are; and in case I decide to make this a test case, what assistance I could have from the National Bee-Keepers' Union?

I propose to have an attorney appear in my behalf before the village meeting on April 20, and, if possible, prevent the insertion of such a rule in the by-laws. I do not propose to give up my rights as a bee-keeper without a struggle, if anything can be gained by fighting. H. D. DAVIS.

Upon receipt of the above communication, we sent Mr. Davis a copy of the decision of the famous Arkadelphia bee-lawsuit, which the Union won several years ago, and which, no doubt, was of incalculable value to the attorney who represented Mr. Davis before the village meeting on April 20. We also informed him that only members could claim aid from the Union, which we presume he was aware of.

What a pity it is that bee-keepers do not awake to the importance of joining the Union before troubles arise, and thus be forearmed for difficulties that may occur on account of nervous and disagreeable neighbors and enemies of the pursuit. This case should induce hosts of apiarists to at once provide themselves a place of safety beneath the folds of the Union's victorious banner, by now sending their membership fee of $1.00 to the Editor of the AMERICAN BEE JOURNAL, who is the Treasurer and General Manager of the organization. Do not delay this duty which you owe to yourself and to the industry of apiculture, but act immediately, and thus be prepared for any unjust attacks.

Every Bee-Keeper should take special pains in Spring to ascertain constantly the amount of stores each hive contains. If he has uncapped most of the honey, and this has resulted in a larger supply being required to maintain the increasing number of bees, it is evident the colony will starve unless syrup is supplied to it, or honey in considerable quantity is being gathered. A stimulated colony requires additional care in this respect, and its wants must be supplied by feeding, if they are not satisfied naturally.—*Exchange.*

Early Spring Feeding of bees is often quite necessary. Mr. M. H. De Witt, of Sunny Side, Md., in the April *American Bee-Keeper*, writes as follows on this important subject:

Feeding in the early Spring is advisable to stimulate breeding, and to keep the colony strong, so that when the early bloom comes it may be strong enough to gather the delicious nectar. Whenever there is any necessity for it, feeding pays; especially in the Fall, before preparing for Winter.

If the stores are insufficient, feed up; each colony should have at least 25 pounds of good ripened honey, all capped over. Extracted-honey, or coffee A sugar reduced to the consistency of honey, is best for feeding, in the absence of good sealed honey. The poorer grades of sugar and glucose are totally unfit for feeding bees. To stimulate in the Spring, one-half pound per day is sufficient for a colony.

For feeding inside the hive, the division-board feeder may be used to advantage. But for feeding early in the Spring, I prefer the Simplicity bee-feeder. You can fill them, and set them on top of the brood-frames at night, and if the weather is not too cold, the bees will take the syrup all down by morning, and all danger of robbing is past.

A. H. Duff, a bee-keeper of Kansas, gives it as a result of his experience that there is no method of dividing bees that will equal in profit natural swarming. If a moderate increase only is desired to run an apiary for profit, it is better for each colony to cast a swarm. No division made by man can equal the first division made by the colony itself. A first swarm will gather more honey after being hived than any two divisions that can be made.—*Exchange.*

Intending Exhibitors at the World's Exposition can get the general Rules and Regulations for exhibitors, and the special regulations pertaining to exhibits in the department in which they may be particularly interested, by addressing Director-General Davis, at Chicago, Ills.

Song of the Golden-Rod.

Oh, not in the morning of April or May,
When the young light lies faint on the sod,
And the windflower blooms for the half of a day—
Not then comes the golden-rod.

But when the bright year has grown vivid and bold
With its utmost of beauty and strength,
Then it leaps into life, and its banners unfold
All along the land's green length.

It is born in the glow of a great high noon,
It is wrought of a bit of the sun;
Its being is set to a golden tune,
In a golden Summer begun.

No cliff is too high for its resolute foot,
No meadow too bare or too low;
It asks but the space for its fearless root,
And the right to be glad and to grow.

Its bloom knows no stint, its gold no alloy,
And we claim it forever as ours—
God's symbol of freedom and world-wide joy—
America's flower of flowers!

—Selected.

Queries and Replies.

Government Bounty on Honey.

QUERY 816.—Is a Government bounty on honey desirable?—Ohio.

No.—R. L. TAYLOR.

No.—EUGENE SECOR.

It is not.—M. MAHIN.

No.—J. P. H. BROWN.

No.—G. M. DOOLITTLE.

No.—J. M. HAMBAUGH.

I think not.—G. L. TINKER.

Not in my judgment.—A. J. COOK.

I do not think it is.—C. C. MILLER.

No. Simple protection will do for me.—H. D. CUTTING.

No. The business should be self-supporting.—C. H. DIBBERN.

No. We are no infants. We were in the Ark with Noah.—MRS. L. HARRISON.

Yes, to the producer of honey, if he can enjoy dishonest money.—JAMES HEDDON.

No; but why should sugar-growers be helped against our own interests as producers of sweets? and if they are to be helped, what right have they to it more than we have?—DADANT & SON.

I think we are as much entitled to a bounty as sugar makers; but I am against the bounty.—E. FRANCE.

No. We were hurt by the removal of tariff and substitution of a bounty on sugar; but we can be, and ought to be, helped and protected in other ways.—P. H. ELWOOD.

If we produce more honey than is consumed in this country, I should say no; but if our home markets are supplied with imported honey, then a reasonable bounty to stimulate the industry would be desirable.—MRS. J. N. HEATER.

I do not think it is. I do not think that any business that needs a bounty to make it successful, will be of advantage to the general public, and certainly it should not be given to sustain luxuries.—J. E. POND.

Not for me. Bounties are good things, sometimes. The Government bounty on sugar is a good thing for the poor man and his family. I pay 4 cents a pound now for the same quality of sugar I paid 7 cents for before the bounty was given.—A. B. MASON.

I have not had time to think about it much right here in our own State. Thousands are paid to our sugar farmers as bounty, and it does look as though we ought to have a bounty on honey also. But this subject, properly handled by the right person, would likely fill this number of the BEE JOURNAL.—MRS. JENNIE ATCHLEY.

No. All bounties that favor the few at the expense of the many, is an unbearable fraud. Down with the robber tariff, and all subsidies and bounties. The man who quits work to go about clamoring for "bounties," bogus pensions, etc., thus debauching and pauperizing his fellow citizens, could not make himself a worse enemy to the best interest of humanity.—G. W. DEMAREE.

I am opposed on principle to the giving of bounties by Government. If the producers of sugar are given a bounty, the producers of honey are injured, and ought to have a bounty to offset this injury. If they get it, the manufacturers of fruit sauces are handicapped, and need a bounty to put them square. If this is granted, justice demands a bounty somewhere else. Better let the whole system alone.—JAMES A. GREEN.

Topics of Interest.

Gathering Honey and Pollen, Etc.

G. M. DOOLITTLE.

"When bees go out in search of honey and pollen, do they visit more than one kind of plants and flowers? In other words, do bees gather honey and pollen indiscriminately, or do they gather wholly from one species?"

On this point there has been no little discussion, a few claiming that the bee gathers indiscriminately, while the larger part of the fraternity claim that only one species of plant is visited at each trip.

Those that claim that bees gather pollen indiscriminately must not have been very close observers, it seems to me, for I have carefully watched for the past 23 years to see whether Mr. Quinby was right in his assertion, when he said, "A bee is never seen with different-colored pollen in her pollen baskets;" and if 23 years are to be a test, then Quinby was right, for in all that time I have never seen a bee entering any hive bearing variegated or different-colored pollen.

We often find pollen of different colors packed in the same cell, but if pollen of different colors are ever carried by any bee at the same time, it is something I have failed to notice.

If the above is a fact, which I believe, then it is conclusive proof that bees only visit one kind of flowers while out after pollen.

When it comes to honey, we cannot go by color, for we cannot see what colored honey the bee has in its sac as the bee flits into the hive, The only way in this case is to watch the bee while it is out after honey. I have many times watched bees in this way, and while I have seen bees go from one kind of raspberry to another, and from one kind of clover to another, and from a currant bush to that of the gooseberry, yet only once have I seen a bee go from one fixed type or kind of plant to that of another kind.

Once while watching bees at work in a field having nearly equal proportions of Alsike, red and white clover in bloom, I came near a raspberry bush which was in bloom at the same time, and although it was no uncommon thing to see bees going from one kind of clover to another, yet I staid in this one place nearly one-half hour before I saw a single bee go from the clover to the raspberry. In all of this time, not a single bee went from the raspberry to the clover, though bees were going and coming to the raspberry bush very often.

From the above, I conclude that in rare exceptions bees do go from one species of plants to others for honey, but not often enough to warrant us in saying that bees gather honey indiscriminately.

SEVERAL EGGS IN A CELL.

"Do good, prolific queens ever lay more than one egg in a cell? I procured a Carniolan queen and introduced her by giving her two frames of hatching brood. After a few days I examined the little colony, and found four and five eggs in a cell. Does that signify that the queen was a poor one, or a drone-layer, or what?"

Under the circumstances, as the querist gives them, it signifies that the queen was a good, prolific one, and as he gave her only two combs, she showed her prolificness by going her rounds at egg-laying over the combs a second, third, fourth, and even the fifth time. The bee-keeper must not decide hastily, but take all the facts into consideration.

If his hive had been full of bees, with plenty of empty cells in the combs, and he had such a state of affairs as he speaks of, then he could have concluded, upon seeing several eggs in a cell, that if there was a queen in that hive she was a poor one, or, what would have been more probable, that the queen was gone, and the hive was infested with laying-workers.

A good queen in a *full* colony of bees lays her eggs in regular order, one in a cell, while a drone-laying queen, or a laying worker will "bunch" their eggs in a few cells, leaving the rest empty. If there is a laying worker in the hive, her eggs are apt to be bunched near or around one or more embryo queen-cells, while these embryo cells will contain many eggs, and often eggs and larvæ together; but so far as I have observed, a drone-laying queen does not place several eggs in an embryo queen-cell. In this way I can decide at sight of the embryo queen-cells, whether there is anything in the line of a queen, in any hive where work is not going on as it should be.

In early Spring, when there are few bees in a hive, or by any division of brood or bees, where there are few bees with any queen, the finding of several eggs in different cells does not argue that the queen is necessarily a poor one but, on the contrary, says she is very prolific, but does not have room enough inside of the cluster of bees to deposit the number of eggs she desires, where only one is placed in each cell.

DRAGGING OUT BEES.

"What was the matter with my bees? In May, several of my colonies dragged out young, live bees, and piled them up in front of the hive. These young bees were apparently just hatched."

Evidently the questioner's bees were troubled with the larvæ of the wax-moth, or what is commonly termed "moth-worms." The larvæ of the wax-moth more generally work between the heads of the pupæ bees and the cappings of the same, but they not unfrequently work through and about the septum of the combs. In the former case, the bees have little difficulty in removing the worms without injury to their brood; but in the latter case, if the worms are removed, the brood or pupæ honey-bees must be destroyed and removed also.

Very many times have I seen hatching bees, on either side of the comb, struggling to get out of their cells, but all in vain, because they were held in place by the webs spun about their abdomens and wings by moth-worms. In such a case as this, the bees remove these helpless young bees and carry them out of the hive as is stated by the querist.

In times of scarcity and starvation, the brood is often sucked dry, and removed from the hive, but in that case none of the brood which is old enough to hatch is molested, except the drone-brood, as such old brood cannot help the bees to exist by sucking the juices out of it.

Borodino, N. Y.

Moth-Worms and Bee-Quilts.

MRS. JENNIE ATCHLEY.

The best way to kill moth-worms after we have been so careless as to let them infest empty combs, beeswax, and even sections, is to simply prepare a vessel full of clear spring or well water, large enough for the amount of work you wish to do, and immerse the infested combs long enough to kill all moth-eggs, etc. Then, if the combs get filled with water, place them in the extractor, throw out the water, and hang them out to dry. After this good rinsing, the combs will be sweet and clean.

Quilts that bees will not cut much are made of any kind of cheap cloth, and dipped in melted beeswax quickly, as we dip in making foundation. The bees will not cut through it nearly so quick, and the quilts are more like light honey-boards.

We have another cold spell now—April 9. We are behind in our Spring, this time.

Floyd, Texas.

Bee-Keeping as an Exclusive Business.

EUGENE SECOR.

There has been a good deal said of late years in favor of specializing. The tendency of the times is in that direction. The manufacture of nearly every article of consumption or use is now carried on by specialists. A great many agricultural, horticultural and garden products are also put upon the market by specialists.

There is no doubt that both economy and excellence are served by this method in many instances, but with our present knowledge and methods there is a limit to the profitable production of one thing. For instance, wheat after wheat for a long term of years will exhaust the soil and cease to be remunerative, and, agriculturally speaking, therefore rotation is compulsory.

With rotation comes a knowledge of how to produce other crops, and hence mixed farming is practiced by the best farmers.

It depends upon the ocupation and the surroundings whether a person should devote all his time and all his energy to one thing.

If when he has supplied his home market, he has the facilities and business ability to push out and supply a larger field with profit, it is all right. Otherwise, not. The further from home his products must go to find a market, the cheaper he must produce it, as a rule.

The largest profit realized from the sale of honey comes, or should come, from supplying the bee-keeper's own market. If his locality is so well supplied with honey-producing plants that the apiarist can profitably keep more colonies than will supply his home trade, it will do for him to reach out a little toward surrounding towns, or to the trade centers; but until he has solved the problem of producing honey at the minimum price, he will not find such increased trade profitable, and unless his locality yields profusely every year, or nearly so, he will not find it profitable to increase his apiary to more than a hundred colonies without establishing out-apiaries. Whether out-apiaries should be established, and a man's whole time and energies should be devoted to producing honey, is a question which ought to be carefully considered before attempting it.

The last few years have not been very encouraging to such practice. But there is no reason why every land owner, at least, should not diversify his labor and cultivate his mind and hand by keeping bees enough to supply his own family with honey, and enough to spare to trade to some neighbors who never will keep bees, for something needed in the home.—*Farmer and Breeder.*

Forest City, Iowa.

Texas State Bee-Keepers' Convention.

A. H. JONES.

The Texas State Bee-Keepers' Association met in their 14th annual convention at Greenville, Tex., on April 6 and 7, 1892, there being about 40 bee-keepers in attendance.

The convention was called to order by President W. R. Graham, and Rev. W. K. Marshall, of Marshall, Tex., led in prayer. President Graham stated the object of the meeting, and outlined the work and business to be done. He also cordially welcomed the delegates to the hospitalities of the city, and to his own home north of the city.

The minutes of the last annual meeting were read and approved. The roll of membership was called, and the death of Mr. J. J. Bankston announced. A committee was appointed to draft resolutions of respect to the deceased brother, as follows: A. H. Jones, Dr. W. E. Smith and J. D. Moody.

The question-box was substituted for a programme.

Dr. Marshall was invited to state his experience in bee-keeping, and gave an interesting talk.

Dr. Marshall was the oldest bee-keeper present, and, perhaps, the oldest in the State. He began bee-keeping when quite young, back in the days of superstition, when it was thought that if a man sold bees, he sold his luck. He was taught that it was not wrong to steal bees if he left remuneration for them on the stand from which the bees were taken.

From the bee-keeper who taught him this, he took a colony of bees, leaving a five-dollar gold-piece on the stand from which he took the bees. Being asked afterward if he had obtained any bees, he told his story to the owner of those he had stolen. Being asked if any one saw him, he said a woman at the house saw him. The owner said: "I'll bet that woman got the money. You will make a bee-keeper."

Dr. Marshall, in his remarks, said that he was perhaps the first man to receive an Italian queen west of the Mississippi. He purchased this queen in 1863, of Rev. L. L. Langstroth, and paid $25 for her; and that Judge W. H. Andrews rode from McKinney, Collin county, on horseback to Rusk, Cherokee county, a distance of nearly 150 miles, to see this queen. Dr. Marshall made many historical statements.

The number of colonies and condition of the same were called for. There were 800 colonies represented; they had wintered well, and were in good condition, and the prospect for a good yield was favorable. Fifty pounds of honey per colony was the average for last year. It was demonstrated from all reports that the industry was on the increase.

The movable-comb hive was discussed at length, and comb-foundation formed an interesting topic. The manner of putting up and selling honey was discussed freely, and the management of bees was an important feature of the discussions.

Reports of committees was called for, and the Committee on Resolutions reported the following, which were accepted, and unanimously adopted:

WHEREAS, Our beloved brother, J. J. Bankston, of Golden, Tex., departed this life on April 12, 1891.

Resolved, That we deeply deplore the loss of our brother, thus cut down in the midst of his usefulness, and in the prime of life; that in his death we feel that we have lost a worthy advocate of our favorite vocation.

Resolved, That we tender our sincere sympathy to the bereaved family, and that these resolutions be spread on the minutes, and a copy of the same be furnished to the bereaved family.

The question-box was then opened.

Which pays best, full sheets of foundation or starters, both in brood-frames and in sections? Reasonably good starters were decided best.

With how many colonies should a beginner start? It was decided that three are sufficient.

Which is the best way, and when the best time, to transfer bees from box-hives to frame ones? Early Spring was decided as the best time, and several ways were presented for transferring bees.

What is the best way to rear queens? Mrs. Jennie Atchley, a thorough queen-breeder, was present, and gave a very interesting description of this branch of bee-culture. The plan explained is the "G. M. Doolittle plan." Much valuable information was gathered from her speech.

On motion of Dr. Marshall, the present officers of the Association were re-elected for the ensuing year.

Greenville was again selected as the place for the next meeting, and the first Wednesday and Thursday in April, 1893, as the time.

The delegates then expressed themselves as to the enjoyment of the occasion, and Dr. Marshall made a farewell talk, and closing prayer, after which the convention adjourned.

A. H. JONES, *Sec.*

What Killed the Bees?

J. H. ANDRE.

A few days ago I met an acquaintance who lives on the hills some three miles away. He told me that he had bad luck in wintering his bees. Said he, "I lost all of my new colonies (10 in number), and some besides."

I learned that the new colonies were put into new hives purchased at the factory last season. With each hive was a piece of oil-cloth, sent, no doubt, for the special purpose of covering the surplus in Summer to prevent the bees from gnawing through. Instead of removing them in the Fall, they were left on during Winter. Probably the dampness and frost accumulated until the spaces, combs and all were nothing more or less than one solid block of ice, and honey combined.

He told me that some colonies, with no covering whatever, with holes in the cloths, came through all right.

The past four seasons I have wintered my bees in single-walled hives with two thicknesses of cloth on the frames, which was covered with 4 inches of buckwheat chaff, loosely packed. During this time my loss has been nothing.

The manufacturers of hives should send printed directions for the workings of their hives at all seasons. This might save beginners much loss.

Lockwood, N. Y., April 11, 1892.

When and How to Italianize Bees.

MRS. L. HARRISON.

Inquiries are being made about the best time for Italianizing bees. The best time for the bees, may not be the best time, all things considered, for their owner. I would not advise doing anything to jeopardize a honey crop, and if undertaken at the present time, a loss of honey might follow. If a colony of black bees is very strong, I would not disturb them, but give them every inducement to store honey. If they swarm I would give them combs if I had them, and put the swarm where the old colony stood, removing the surplus from the old one to the new.

It would be better to move the old colony to one side, facing a different direction from what it did, so that all the bees which were working in the fields, would enter the hive of the new colony. Gradually turn the old colony around so that in eight or nine days the hives would stand side by side, and then carry away the old one to a new stand, thus massing all the old bees in one hive to store honey.

The old colony which was carried away would contain no bees that were working in the fields, and if the queen-cells were all removed, there would be no eggs or young larvæ from which a queen could be reared, and the bees would gladly accept an Italian queen. This management would prevent all after-swarming, and keep the colony strong to work upon Autumn bloom.

When the honey season has closed, the queen in the new colony might be removed, and an Italian introduced.

The Spring following, both colonies would be Italians, and no time would have been lost by the change. When a bee-keeper is Italianizing his apiary, he should keep queens on hand, so as to improve every opportunity for introducing them. I have known cases in which queens were lost during swarming, and the bees left running all over the hive, mourning. When an Italian queen was given them, they then turned their mourning into joy.

Is it best to buy or rear queens? Where a person has but a few colonies to Italianize, it is far preferable to buy them. A breeder has all Italian bees, and there is much less risk to run of queens not mating with pure drones than where the major part of the bees in the apiary are black. Where a person has leisure, and is fond of experimenting, it is a pleasure to rear one's own, by purchasing an Italian colony containing a tested or imported queen, or get a queen only, if a whole colony cannot be readily obtained. Queens are now sent by the mails to all parts of our country and to foreign lands.

In an apiary of any size, there may always be found some colonies far ahead of the others in the production of honey and in numbers. These are the ones to choose, from which to rear queens and drones. I rear a few queens every season, in this way:

I observe which are the best colonies, and if there is a dearth of honey, following fruit-bloom, I feed them so that they will continue rearing brood. If I did not, they might destroy their drones. By feeding these favorites, they swarm early, and during favorable seasons, build many large, well-developed queen-cells, and I preserve as many of them as I can.

About the time of the emerging of the young queens from their cells I divide the old colony, in this way forming nuclei. I put a frame of honey into a hive, and by its side one containing a ripe queen-cell and covered with bees taken from the hive which had swarmed. If a comb of sealed brood is removed from a colony containing a queen, the larger proportion of the bees will return to the queen; but if a comb with a queen-cell upon it, is taken from a queenless colony, many of the bees will remain with the queen-cell, and she may come out in a short time. In rearing queens, I prefer the hives in use in the apiary to small ones. I put the combs of the nuclei in the center of the hive, with a division-board each side. This reduces the size of the hive to a small one, and I can enlarge it at will by removing the division-boards.

When the queen and brood are all out of a comb, I brush the bees from it, and exchange it for one containing sealed brood. In this way, the nuclei will have plenty of bees to nourish and cover the brood when the young queen is laying. By this feeding after fruit-bloom, if there is a dearth of honey, the good drones will be preserved to fertilize the young queens, and those left unfed will be destroyed.—*Orange Judd Farmer.*

Peoria, Ills.

Closed or Open End-Bars—Which ?

DR. G. L. TINKER.

I suppose if this question was put in other words so as to read, "Are the standing closed-end Quinby brood-frames preferable to the Langstroth hanging ones? the general verdict would be that the latter are preferable. Yet there is undoubtedly a growing sentiment against loose hanging-frames. But that it will ultimately lead to the adoption of a closed-end brood-frame, I do not think.

Although many excellent bee-keepers now use them, and would have no other, still my faith is stronger to-day than ever, that some form of the Langstroth hanging-frame will ever be the most popular, and will serve to perpetuate the memory of the man who has done more towards the advancement of apiculture than any other that ever lived; who lifted our pursuit from an unprofitable and unsatisfactory investment in straw skeps and box-hives, to a pursuit at once profitable, respectable, and highly fascinating to a large class of our people.

That this revival of apiculture from the state of obscurity into which it had fallen, was due to the Langstroth invention, there is not one to-day who doubts. That it still has merits over every other invention of a bee-hive, both ancient and modern, it seems to me is so far proved by the history of apiculture in the last 40 years, that the question is hardly worth discussing; and that these merits lie chiefly in the superiority of the hanging-frame is equally apparent.

So it would appear that after the general approval of the bee-keepers of the civilized world for 40 years, we may well conclude that the principles of the Langstroth hive will survive and become the dominant ones in the popular hives of the future.

The present tendency against *loose* hanging-frames is not necessarily a tendency to the use of a closed-end brood-frame, but rather to some practical method of spacing and fixing the hanging-frame. This we have had for some years in the Hoffman-Langstroth frame, which of late has undergone a further improvement by the Root establishment at Medina, so that as now constructed, it is without objection, and fulfils every function claimed for the closed-end frames, and yet is about as readily movable as the old style of the Langstroth frame.

However, in a hanging-frame only 7 inches deep, which I use, I prefer to space and fix the frames by a very light form of the Van Deusen metal corner, as it spaces exact 1⅜ inches from center to center, and does not interfere with the ease with which the frame may be taken from the hive. It is, therefore, my opinion that between these two methods the public need not look further for a practical means of keeping the Langstroth frame in its place. The preference, then, must be given to brood-frames with open end-bars.—*Read at the Ohio State Convention.*

New Philadelphia, Ohio.

Propolis, Black Bees, Etc.

ALLEN LATHAM.

I was much surprised to see the query on page 444, about propolis. I wanted to ask the querist why he did not find out for himself. However, when a well-known apiarist replies to this question, that bees carry propolis in their honey-sacs, I am no longer surprised at the question. Is it possible that there is a bee-keeper of a year's experience who has not seen a worker carrying propolis—has not seen such a worker with its propolis-covered legs stuck together? It is one of the commonest sights in July and August. Who has not seen the bees carrying paint, varnish, and even wax in that same way?

VALUE OF BLACK BEES.

I hope that the "blacks" will find hearty supporters. I am glad that there are so many bee-keepers coming forward to uphold this race of bees. In my mind there is no question but that the blacks are as good as the Italians. The Italians are prettier. If the Italians seem superior to the blacks at present, it is because more attention has been paid to the breeding of them. Why not breed the blacks?

It is certainly true that this much-abused race of bees is more ready to enter the sections, and will produce better looking honey. I never had a colony of Italians which would give me well-filled sections of white comb. I think that we can ill-afford to neglect the black bees, if we keep them for no other purpose than to cross with the pretty Italians.

JUDGING BEES AT FAIRS.

Messrs. Trego, on page 421, give what is to me an unsatisfactory "scale of marking." Thirty per cent. for "size" is too much. It is difficult in the first place to give good judgment upon the size of bees. Two bees of equal size may seem unequal if one be partly filled with honey. I should rather leave size out altogether, than to count it so much. If the queen is to be considered at all, she should have more than 10 points; also the style of comb and hive, if to be considered at all, should be considered of more account.

IMPORTANCE OF GOOD DRONES.

Mr. Tefft, on page 420, gives a suggestion as to the value of drones in a hive where queens are reared. This seems to me a very important matter. I confess to know nothing about it. I wish that we might have the opinions of queen-breeders upon this point.

Cambridge, Mass.

The Italian and the Black Bees.

FRANK ARNOLD.

I have had ten years' experience in bee-keeping, and had Italian bees for five years. I gave them a pretty good test, and am in favor of the Italians; for honey-gathering I found them far superior to the blacks.

On page 450 is an article by H. C. Farnum, wherein he says that in his experience with Italians, he finds they are not an inferior race of bees, far from it, and says that the blacks are ahead in honey-gathering in his location, especially when honey is scarce.

This is contrary to my experience; when honey is scarce, the Italians are far ahead, but when honey is coming in rapidly, I did not notice so great a difference, but by no means were the blacks ahead, even the hybrids are superior to the pure natives, and occasionally I find a colony of hybrids that are equal to the best of pure Italians in honey-gathering qualities; but I do not like them on account of their vindictiveness.

With the Italian and native bees there must be a great difference in the various localities, and the only difference I can see in such localities is the different honey-plants on which one race of bees works better than the others. In other respects, such as wintering, I do not notice so great a difference.

Native bees usually breed latest in the Fall, and Italians earliest in the Spring. This is probably caused by the Italians filling their brood-chamber chock-full of honey early in the Fall, influencing them to stop breeding early in the Fall, and, having more honey, they consequently breed up earlier in the Spring than the natives.

On page 246, Mr. M. B. Nichols stated that he lost 5 colonies of bees, of which 3 were Italians; and the question arises, why he should lose all 3 colonies of Italians. I have lost 4 colonies in the same way—1 Italian, 1 hybrid, and 2 blacks. Now, I do not exactly know the cause of their death, but I think it was on account of cold weather and dampness existing in the hive, causing the bees to remain where they clustered, and, being unable to move about, they died amidst their honey.

Deer Plain, Ills., April 4, 1892.

Care of Unoccupied Combs.

DR. C. C. MILLER.

"How shall I take care of brood-combs left by colonies that have died?" That is the question asked every year. They are well worth saving. Two enemies are to be guarded against—mice and wax-worms.

Years ago, one Winter, I lost 48 colonies out of 50. That left a pile of empty combs—480. I stacked them up in their hives in-doors. Do you believe the mice went at them and riddled every last comb except a very few that had never had brood in? New, empty comb they do not care so much for. Comb filled with honey is disturbed only so far as they want to eat the honey, and their appetite in that direction is limited. But empty combs containing cocoons in which the bees have been, are their special delight. Those 480 combs, at that time, were worth at least $100.

How should I have protected them? Why, how would you protect anything from mice? Kill off the mice as soon as you can, but in the meantime shut up the combs mouse-tight. This is easily done, for every hive must be so you can shut it up bee-tight, and a mouse will seldom gnaw its way into a hive. Look sharp that there are no mice in the hives when you shut them up.

But if I had shut them up from the mice just as soon as warm weather came, the worms would destroy them even worse than the mice, no matter how tightly shut up. Somehow the eggs are in the comb, and when warm enough they hatch out into worms. If the combs have been out-doors, so as to be thoroughly frozen, that kills worms and eggs. I do not know just how much freezing is needed, but light freezing will not do; 10° to 15° would perhaps be necessary.

Well, what will you do if they have not been frozen? The eggs are so small you cannot find them, but you can find the worms when they are very small, for a white, powdery substance surrounds them, made by their gnawing, perhaps. Still, it is a pretty big undertaking to find the little worms on a big lot of combs, and if you keep them in a cool cellar they will not hatch out very rapidly, nor grow very fast after they have hatched.

Fumigating them with sulphur or brimstone will kill the worms, but not the eggs. If they have grown to full size, it takes heavy brimstoning to kill them. If you get them once all hatched and killed with brimstone, then they are safe until the wax-moth lays more eggs in them. This can be prevented by closing them up moth-tight. If the combs are hung about two inches apart in an airy place, the moth is not likely to disturb them. Some report success by putting them in hives and putting in spiders.

I will tell you how I have managed my combs for the last few years: Suppose a colony has died. I try to see that no mice can disturb the combs, shutting the hive up mouse-tight, and then putting it in the cellar if it is not already there. From time to time I keep watch, and so long as no worms can be seen I let them alone. As it gets warmer, the worms will be seen, and sometimes I have left the combs then for some time, picking out, with a pin or a wire nail, all worms a half-inch long; for up to that size they do not work so fast on the combs, especially in a cool place.

But there is no place in the world that combs are so safe from worms as in the care of a strong colony of bees, especially the Italians. So, as fast as they can be given to the bees, all anxiety about them is over. The only trouble is that in the Spring you want to keep the bees warm, and on as few combs as possible. But by the time it is warm enough for worms to do much harm, it is warm enough for bees to cover a little more territory. Still, I do not need to put the combs right in the hive with the bees, but I put them under. Put a hive full of the combs under the hive with the colony, so that the bees in going in and out must pass through the hive of empty combs. Do not leave any other entrance or exit for them. You may rely on their finding every worm, and taking them out, too, if they are Italians, and I suppose the blacks, if strong, will make pretty good work at it.

If there is any honey in the combs, lookout, or you may have a "picnic" with robbers. Better put the combs there toward evening, not very long before they stop flying, and by preference when it is warm enough for them to move around considerably at night. Then they will, by morning, get over the excitement caused by finding such a bonanza so near at hand, and will be ready to protect the entrance against intruders. Close the entrance up just as small as you can without hindering them about getting in and out. Of course if there is no honey in the combs there is no need of any such precautions.

As soon as you need the combs for new colonies, they can be taken, and you will find them in the very nicest condition. One year I left them under until the bees stored honey in them which I extracted, and some of them had brood.—*National Stockman.*

Predictions About the Honey-Flow.

SAM WILSON.

My article on page 484, is not as plain as I would like to have had it. In the first paragraph, I should have said that I have not as good a chance this year as I had last to show bee-keepers that I can tell just about what the honey-flow will be, from the fact that it will be more general this year than it was last.

In the third paragraph, I should have said that what causes linden and white clover to fail to secrete nectar, does its work long before they bloom; after that no power on earth can make them produce nectar; but, on the other hand, the flowers may be full of nectar, and the weather be so that bees could not work.

There are two natural but diverse influences that cause flowers to fail to secrete nectar. Here, when sourwood and linden are going to be a failure, ivy will produce a good flow of nectar; but if ivy fails, linden and sourwood will yield honey. But there is only one natural cause that makes linden and white clover fail to secrete nectar, or makes it secrete nectar.

There ought to be double the amount of honey produced this year that there was last. All the States east of Kansas ought to have a fair crop of honey, but Kansas and Nebraska will not have a good flow. Extreme eastern Nebraska ought to have a fair crop.

The Southern States ought to have a fair crop of honey wherever linden, white clover and sourwood are the dependence for honey. Sourwood ought to produce honey in north Georgia, Alabama and Mississippi, and in Tennessee, except the larger part of east Tennessee, from about 30 miles west of Knoxville and east.

Sourwood and linden will produce but little honey in western North Carolina; the larger part ought to have a good flow from linden and sourwood. Kentucky will have a good yield from white clover and linden, if they have any linden bloom. The flow will be better there than in the States east, in the same latitude.

My predictions are made in regard to linden, white clover and sourwood.

It is an easy thing to tell what the honey crop will be, when one knows the true cause of failure. Very often there is a failure when but a few miles distant there is a good flow. The reason for this will be understood when you learn the cause of flowers failing to secrete nectar. Then you can know when, or in what part of the country, the honey-flow will be the best, and be there with your bees.

If I lived close to Jackson county, Iowa, I would move my bees into that county, if a good location for an apiary can be secured.

I will prove later that I can tell what I profess to know.

Cosby, Tenn.

Utah Bee-Keepers' Convention.

JOHN C. SWANER.

The regular semi-annual session of the Utah Bee-Keepers' Association was held at Salt Lake City, Utah, on April 7, 1892.

At 10 a.m., President O. B. Huntington called the convention to order, and after prayer by German Ellsworth, Secretary Swaner called the roll, after which several new members were admitted to the Association.

The report of the committee appointed at the last session to obtain legislation relative to "foul-brood," was called for, and John C. Swaner said a bill was passed, after considerable exertion on the part of the committee. The report was accepted by the Association, and the committee discharged with a vote of thanks.

The question of marketing honey was discussed, the general sentiment of the Association being that honey should be put up in an attractive shape, to sell well, and that it would always sell better in a poor fruit year than when fruit was very plentiful. President Huntington suggested that they try to create a better market at home, and show the people the benefits to be derived from the consumption of honey in the family. We would thus provide them with a healthful article of diet, and save freight cost of exporting much of our honey.

The Secretary submitted a report on the subject of freight rates, which was received and filed.

The "act relating to bee-culture" was then taken up and discussed by the members generally, the question of taxation and duties of the inspector receiving special attention.

Mr. Swaner presented the following resolution, which was adopted:

Resolved, That the 4¼x4¼x1⅞ section be adopted by this Association as the standard section, and that hereafter honey shall be sold by such standard in place of by weight, and that no tare be allowed on cans, glass on any packages (except wooden) unless the buyer furnish the same.

Messrs. Taufer, Thomas and others spoke about marketing, and Mr. Swaner reported in regard to a carload of honey which had been shipped East.

A special committee consisting of R. T. Rees, German Ellsworth and John Parley was appointed to obtain rates upon can packages.

R. S. Betts said we should not be extortionate, but should expect and demand a reasonable remuneration for our products.

The question of representing the Utah Bee-Keepers' Association at the World's Fair was brought up by Mr. Taufer, and a committee was appointed with this end in view, consisting of Messrs. Taufer and Woodmansee of Salt Lake, and R. T. Rees, of North Ogden.

It was resolved that copies of the new Law be obtained, to be paid for out of Association funds and furnished members.

Representatives from the main counties of the Territory were present, and credit is due to Messrs. Taufer, Swaner and others for their efforts in behalf of the Association. It is mainly owing to the efforts of the two gentlemen named that the Association has been organized.

On motion the Secretary was requested to publish the Act of the last Assembly, relating to bee-culture, in the *Intermountain*, and the Association adjourned to meet on Oct. 7, 1892.

JOHN C. SWANER, *Sec.*

The Law of Progression.

AZALEA TOMLIN.

A leaf presents a fitting example of the universal law of change. Although a perishable part of the universe, it furnishes a medium for the illustration of the same law that is expressed in more enduring forms.

Take the bud from its first animation until it reaches the maturity of a leaf, and what a wonderful expansion of molecules is there presented. In *it* only the result is perceptible—we remain ignorant of the process of its development.

The leaf dies only to live again. It may constitute a part of the granite column, or it may be taken up by the animal kingdom, but its particles cannot be lost. If it were endowed with the faculties of speech, the most traveled might find their experiences as nothing, compared with this great wanderer.

Why all this activity? We can but answer that it is this law upon which perfection is based—a principle upon which each must act, in order to secure the healthfulness and prosperity of the whole. The sea constantly dashes its billows upon the shore, atoms ever change their form and position, that the purity and life of the universe may be preserved. Usually we find an exception to every law, but here there is none. It is written with many colors in the ethereal dome above, sounded with fearful distinctiveness to the earth's center, and, as if the whole was but a greater exemplification of the law of the parts of which it is composed, the earth performs its mighty revolutions. Space is peopled with suns and planets that revolve unceasingly in their orbits. In the contemplation of this law, perception fails us. Reason cannot apprehend the divine truths which come to us in merest glimpses.

In the human mind—the most glorious work of God—perhaps the law reaches its fullest significance. The most adverse circumstance assists in its development. Though no special effort is made in its behalf, yet it cannot remain dormant. It is in itself a wonder, the possibilities of which are unlimited. The most zealous minds have never been able to span the arcana of knowledge which is its birthright, and we know not to what heights it is possible for us to attain, since we have found no limit.

It is only by unceasing effort that anything really valuable is attained. The patient seeker is always rewarded, and often gains a marked success, where he who trusts merely in talent fails. The mind does not gain a wide culture without much endeavor. Elizabeth Carter, one of the charmed circle of Hannah Moore's time, proved the truth of this in the acquisition of the Latin and Greek languages. Her father grew discouraged at her dullness, and abandoned his efforts as teacher. But we learn of her success from the lips of Dr. Johnson, who, when speaking of a friend, thus affirmed, that he understood Greek better than any one else, *except* Elizabeth Carter! We advance in knowledge by means of the thoughts and productions of other minds.

We instance this in the influence which pervades the literary world, through the writings of Shakespeare. How often do his words incite to thought our greatest talent. In his works are presented such a selection of words, such a comprehension of ideas as scarce another equals. Delightful as has proved the discoveries of obscure points in this instance, perhaps the one has not lived who can so enter into sympathy with this gifted one as to realize the meaning of the thought the writer intended to convey. This is only one of the many instances afforded us as a means of advancement.

If we admit the assertion of Solomon's, that "there is nothing new under the sun," then all our expressions are but quotations, our thoughts but the same ideas others have possessed, presented in another form. A steadfast purpose to attain a desired result is requisite to success.

It may be that the plan which was first presented, acted upon my ever changing circumstances, shall have deviated so much from the idea that the wished-for result is not attainable; yet if ours has been an honest endeavor, we may be assured that the end is more truly a success than could have resulted from our early dreams.

The love of letters inspired Milton to action. Doubtless he looked forward to a future of success unimpeded by physical ailment. Had his early dreams been fully realized, his writings might not have shown such insight of higher things. The blind poet was led by an unseen hand through a country whose glories needed neither light of the sun, nor clearness of vision to reveal them. Deprived of that daily intercouse with Nature, by which he would be enabled to enter the field of pastoral poetry, he was endowed with great mental vision, a spiritual perception which peculiarly fitted him for the epic field. Thus insensibly was he formed for the niche awaiting him in the mosaic work of time.

The true poet delights in expressing that which seems of small moment to an ordinary mind. The most trivial circumstance yields food for his comtemplation, which, expressed in appropriate form, is the spring of his success. The true worker is inspired by something far beyond the mere hope of success. To do, not that he may attain a short-lived fame, but that he may express the God-given idea of himself.

Who will fail to honor Luther for his persistent efforts against error, or Wilberforce in his struggle for justice? Instances to which we owe much of our present order and advancement are numerous. Imagination is not impeded, aspirations for something more enduring, more satisfying than time can offer, is the experience of all. In this desire is revealed the possibility of a higher destiny.

Wisconsin World's Fair Bee-Exhibit.

C. A. HATCH.

The Wisconsin Columbian Fair Managers have allowed $500 to the Wisconsin Bee-Keepers' Association to pay expenses of an exhibit at Chicago, of honey-bees, bee fixtures, etc. So let every bee-keeper in the State rejoice and be exceedingly glad, buckle on his armor and go forth to the battle the coming season with renewed strength and determination to do his share to make this part of Wisconsin exhibit a grand success.

With our never excelled clover, our far-famed basswood, and our rare mint honey, to say nothing about our buckwheat, golden-rod, and much dispised honey-dew, we ought to get an assortment that will make even California wince.

Now if the Fates will only be kind, and send us sunshine and showers during the coming honey season, just when we want them, we shall be happy.—*Wisconsin Farmer.*

CONVENTION DIRECTORY.

Time and place of meeting.

1892.
May 5.—Susquehanna Co., at Brooklyn, Pa.
H. M. Seeley, Sec., Harford, Pa.

May 11.—Ionia, at Ionia, Mich.
H. Smith, Sec., Ionia, Mich.

May 12.—Connecticut, at Hartford, Conn.
Mrs. W. E. Riley, Sec., Waterbury, Conn.

May 17.—Northern Illinois, at Harlem, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

May 28.—Haldimand, at Nelles' Corners, Ont.
E. C. Campbell, Sec. Cayuga. Ont.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Eugene Secor..Forest City, Iowa.
SECRETARY—W. Z. Hutchinson....Flint, Mich.

National Bee-Keepers' Union.

PRESIDENT—James Heddon ..Dowagiac, Mich.
SEC'Y AND MANAGER—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Late Frost and Dry Weather.

Bees are behind, this Spring. We had a very late frost, and the weather is very dry. I do not expect any swarms this month ; last year they commenced to cast swarms on March 30. Will raising the upper story ⅜ of an inch above the lower have any effect on swarming? Who can tell me?

GEO. TOURNAT.
San Antonio, Tex., April 12, 1892.

Indications of a Profitable Season.

My bees are building up very fast, and there is every indication of a profitable season here. I examined my three hives, and transferred one colony that was on odd-size frames to the Simplicity, and found all with from 20 to 30 pounds of sealed honey each. I winter my bees on the summer stands, with an outside case filled in with dry leaves, and have not seen a tea-cupful of dead bees around, or in any one of the hives.

Newton, Mass. A. A. BRIGGS.

Wintered Well—Italian Bees, etc.

We have had a pretty hard Winter here, but I think the bees in this section have wintered fairly well. The first pollen was gathered on Feb. 21, which is earlier than it is generally gathered. After the maple bloomed, the weather was so wet that the bees worked on fruit-bloom but little, but now the huckleberry is in bloom, and, if the conditions are favorable, I think we will have a good flow of honey from that source. There seems to be quite a discussion about the black and Italian bees. I know but little about the Italians, for there is but one pure queen near here, and that is one that I obtained last Summer. She was introduced to a colony of hybrids, and now the bees are mostly three-banded. They are more active than the blacks and hybrids. From what I have seen of the colony, I should say they were far superior to the others, but I cannot speak definitely until the end of the season. I will then report, and let the readers of the BEE JOURNAL know which race I think is the best. I am going to try an experiment with a few honey-plants this year, and see if they are of any value for the production of honey.

ED. CLARK.
Nat, Ala., April 13, 1892.

Losses of Bees in Wintering.

Winter losses of bees in this county will prove to be one-half or more of Fall count. Bees are lacking in stores, and weak in numbers. H. SMITH.
Ionia, Mich., April 19, 1892.

Wavelets of News.

Progress and Improvement.

We have plenty of bee-keepers who will hoot at every new idea proposed, evidently being afraid, as one has expressed it, of "breaking away from our moorings."

Well, if we did not occasionally make just such breaks, all progress would be at an end. It would seem to us that it is better to try to improve our methods than to forever go on in the old way. It is just this desire for improvement that has completely changed all our fixtures, and almost every detail of the business in the last fifty years.—C. H. DIBBERN, in the *Plowman*.

Government Aid for Bee-Culture.

The Commissioner of Agriculture recognizes the importance of the honey and wax production of the United States, and it is now proposed to give more attention to the industry than at any time heretofore. It would be a very easy matter to double the quantity of honey and wax product of this country, and that, too, without interfering with any person now engaged in the business.

Bee-pasturage, like any other pasturage, can be overstocked, and it shows a lack of intelligence or business sense where bee-keepers crowd a multitude of bees on to a limited territory, though that locality may abound with good nectar-producing plants, shrubs and trees. It would be just as reasonable to expect 5,000 sheep to thrive on 10 acres of land, because when they were turned in upon the land it was covered with burr-clover two feet high.—*Exch.*

Ringing of Tin Pans, Etc.

Quite a discussion has been carried on in the past, relative to bees having hearing, most of which tends to prove that bees are as "deaf as adders." This being the case, the beating of pans, ringing of bells, etc., which many resort to, has no bearing upon restraining a departing swarm. The throwing of the sun's rays into the flying mass, by means of a mirror, is generally effective in stopping runaway swarms.—*Exchange.*

Apiary in the Spring.

With the approach of Spring, preparations for the new colonies of bees must be planned and made. The bee-keeper should increase the number of his bees each season, and it may be that many of those who never enter into the business will undertake the work of increasing their income by this method. From nearly all farmers who have kept bees we hear that there is a larger percentage of profit in bee-keeping than in raising grains or garden crops. The chief capital in bee-keeping is brains, patience, and perseverance.

If colonies are started this Spring, be sure to select a place for them behind some garden fence or hedge where the branches and leaves of the briers and bushes will shield them from the raw northerly winds. Bees in the woods always select such a sheltered place for their home, and in the Winter time they often live there without any other protection. Many an old farmer keeps his bees successfully all through the Winter by locating his hives in some sunny, sheltered place, behind the wood-shed, orchard, or tract of thick timber. In fact, a few colonies of bees can be kept better probably behind a bee-shed than in any other place, and all through the coldest weather they will live and thrive.

The raw, chilling winds from the north and northwest are the most injurious things that can threaten the lives of the insects. Look out for the Spring winds. It is often the most trying time. The warm days give life and restlessness to the bees, but they are suddenly followed by raw, chilling winds, which carry death with them. The colonies that are protected by some windbreak during this time, will be the most successful ones.—HELEN WHARBURDON, in the *Farmers' Weekly Home.*

Uniting Colonies in Spring.

It often occurs that colonies come through the Winter in such a weak state that it is impossible for them to gather strength to ever amount to anything; hence such colonies may be united until there is strength enough to produce a good colony. This method will prove advantageous, as "in union there is strength." But sometimes we do not gain anything, as during some Winters bees do not winter well, and come out in a diseased condition. At such times dwindling sets in, and such uniting is not a success, as they will die off in such numbers as to gain nothing. But if colonies are healthy, uniting is a success.

It is better to unite until colonies are reasonably strong, otherwise it will take the entire honey season to put them in condition. It is of importance to ascertain the required strength necessary to produce a profitable colony. Uniting beyond a certain limit is very bad work. It lessens the number, and gives more strength than is necessary early in the season. There is but little gained in great strength long before the honey season sets in; hence a colony of bees that occupy three or four frames is strong enough, and perhaps anything over two frames will do.—A. H. DUFF, in the *Stockman.*

The Amateur Bee-Keeper, by J. W. Rouse; 52 pages. Price, 25c. For sale at this office.

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BEE JOURNAL

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☞ As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.

YOU NEED an Apiary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for $1.25; or for 200 colonies for $1.50. *Order one now.*

Supply Dealers desiring to sell our book, "Bees and Honey," should write for terms.

We Club the American Bee Journal and the Illustrated Home Journal, one year for $1.35. Both of these and Gleanings in Bee Culture, for one year for $2.15.

If You Have any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time.

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

When talking about Bees to your friend or neighbor, you will oblige us by commending the BEE JOURNAL to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the Convention Hand-Book by mail, postpaid. It sells at 50 cents.

HONEY AND BEESWAX MARKET.

CHICAGO, Apr. 23—Fancy white comb selling at 16c.; other grades 10@14c. Extracted slow demand, 6½@7½c. Beeswax, 26c.
S. T. FISH & CO., 189 S. Water St.

NEW YORK, Apr. 23.—No demand for comb honey excepting fancy white. Quite a stock on the market of off grades and buckwheat. New Southern extracted arriving and sells at from 70@75c. per gallon for choice; 65@70c. for common. Beeswax quiet but firm at 27@29
HILDRETH BROS. & SEGELKEN,
28-30 West Broadway.

KANSAS CITY, Mo., Apr. 23.—Demand light, supply large. Prices: No. 1 white comb, 13@14c.: No, 2 white, 10@12c. Extracted, white, 6@7c.; amber, 6@6½c.; dark, 5c. Beeswax—Demand good, supply light, Price, 22@27c.
CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI. Apr. 23.—Demand is slow for comb with good supply. Price, 12@15c. Demand for extracted is fair at 5@8c.

Beeswax is in good demand, at 25@27c for good to choice yellow.
C. F. MUTH & SON,
Cor. Freeman & Central Aves.

NEW YORK, Apr. 23.—Demand for honey is very moderate, supply good, exceeding the demand. There is little demand for fancy 1-lbs. Market pretty well cleaned up of that grade, but plenty of fair. Prices: Comb, clover, 8@12c.; buckwheat, 7@9c. Extracted, clover, 6½@7c.; buckwheat, 5½@6c. Beeswax—Demand fair, supply plenty for demand, at 27@29
CHAS. ISRAEL & BROS., 110 Hudson St.

KANSAS CITY, Mo., Apr. 23—Demand poor, supply light of comb. Fancy 1-lbs., 12@13c.; dark, 8@9c. Extracted, white, 7c.; dark, 5@6 No beeswax on the market.
HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, Apr. 23.—The demand is slow, and supply fair, and will be absorbed by time new crop comes. Comb, 11@12½c. Extracted, 7@8c. Beeswax—Demand moderate, supply fair; price, 27@28c.
M. H. HUNT, Bell Branch, Mich.

CHICAGO, Apr. 23.—Demand fair and supply short on fancy stock. Comb, 14@15c. Extracted, slow sale at 6@7c. Beeswax—Demand good, supply short on prime yellow; price, 25@28c.
J. A. LAMON, 44-46 S. Water St.

MILWAUKEE, Apr. 23.—Demand very moderate, supply average of all grades but common quality. Best 1-lbs. 15@16c; common, 12@13c. Extracted, white, in barrels, 7c.; in kegs, 7½c; in pails, 7½@8c. Beeswax—demand fair, supply small. Price, 23@28c.
A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO, Apr. 23.—Demand light, supply light. Comb, 10@12c. Extracted, 5@6¼c. Beeswax — Demand fair, supply light. Price, 25@27c. A fair to good honey crop for 1892 is expected.
SCHACHT, LEMCKE & STEINER,
16 Drumm Street.

NEW YORK, Apr. 23.—Demand is light, and supply large, except buckwheat comb. We quote: Fancy white comb, 12@14c; buckwheat, 9@11c. Extracted—Clover and basswood in good demand at 6½@7c; buckwheat ind emand at 5@6c. Beeswax in fair demand at 26@28c.
F. I. SAGE & SON, 183 Reade St.

CHICAGO, Apr. 23. — Demand is slow, supply fair, but not excessive, and market should clean up. Prices: Comb, 15c. is about the top. Extracted, 6, 7@8c.; supply small. Beeswax —Demand good, supply better than last season. Price, 27c. for yellow.
R. A. BURNETT, 161 S. Water St.

BOSTON, Apr. 23.—Demand is light, supply fair. We quote: 1-℔. fancy white comb, 13@15c; extracted, 6@7c. Beeswax—Demand fair, supply light. Price, 28c.
BLAKE & RIPLEY, 57 Chatham St.

MINNEAPOLIS, MINN., Apr. 23.—Demand is moderate, supply of dark is large, but white is not so plentiful. Prices: Dark comb, 10@13c.; white, 15@17c. Extracted, supply plenty. Beeswax—Demand good, supply small.
STEWART & ELLIOTT.

ALBANY, N. Y., Apr. 23.—Demand is very little for comb at 8@12c. Market quiet. Extracted, 6@7c. Beeswax in good demand at 28@30c. for good stock.
H. R. WRIGHT, 326-328 Broadway.

NEW YORK, Apr. 23.— Demand moderate, and supply reduced, with no more glassed 1-℔ nor paper cartons, 1-℔. We quote: Comb, 1-℔, 14@15c. Extracted—Basswood, 7¼@7½c; buckwheat, 5½@6¼; Mangrove, 68@75c per gal. Good demand for dark extracted honey. Beeswax, in fair supply, with small demand, at 26@27c.
F. G. STROHMEYER & CO., 120 Pearl St.

The Convention Hand-Book is very convenient at Bee-Conventions. It contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with Subjects for Discussion. In addition to this, there are about 50 blank pages, to make notes upon, or to write out questions, as they may come to mind. They are nicely bound in cloth, and are of the right size for the pocket. We will present a copy for one new subscription to the BEE JOURNAL (with $1.00 to pay for the same), or 2 subscribers to the HOME JOURNAL may be sent instead of one for the BEE JOURNAL.

Calvert's No. 1 Phenol, mentioned in Cheshire's Pamphlet on pages 16 and 17, as a cure for foul-brood, can be procured at this office at 25 cents per ounce, by express.

Get a Binder, and always have your BEE JOURNALS ready for reference. We will mail you one for 50 cents.

Busy Bees, and How to Manage Them, by W. S. Pouder. Price 10 cents. For sale at this office.

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THOMAS G. NEWMAN, EDITOR.
GEO. W. YORK, ASSISTANT EDITOR.

Vol. XXIX. May 5, 1892. No. 19.

Editorial Buzzings.

"**Sweet** as the fragrance of a bee-kissed flower,
Her gentle nature has its hidden cells
Full of rich offerings, wherever dwells
Love to all things."

◆

Cotton is the principal source of honey in Arkansas.

◆

The Merry Hum of the bees at night is sweet music, after enduring a hard day's work in Summer.

◆

The Vermont Bee-Keepers' Association have had the report of the proceedings of their last convention, held at Middlebury, Vt., on Jan. 27 and 28, 1892, printed in pamphlet form. We have received a copy of it, which also contains the Constitution and By-Laws of the Association.

Insect Life, the periodical publication of the Division of Entomology of the United States Department of Agriculture, contains among the editorial articles of its April number an account of a dangerous potato pest which has recently found its way into this country. It is known as the Potato-tuber Moth (*Lita solanella* Boisd.), and was first noticed in 1855 in Tasmania. It has been very destructive to potatoes in Australia, Tasmania, New Zealand, and Algeria, but in this country did not attract attention until November, 1891, when it appeared in California. The remedy advised is the immediate seclusion and destruction of all infested potatoes.

This number contains also an article on "Bees of Great Value to Fruit and Seed Growers," by Mr. Frank Benton, which we will present to our readers next week. It shows conclusively the great advantage of bees to horticulturists and fruit-growers.

◆

Mr. J. E. Pond, of North Attleboro, Mass., who is so well known to the readers of the BEE JOURNAL, has been suffering with *La Grippe* for the third time. We can sympathize with him most fully in this affliction. On April 22, he wrote the editor as follows:

> I am just now getting around from *La Grippe* once more, this being my third season with it. I have had all I want. I trust you are recuperating, and hope you are able to attend again to your active labors. Long may you be able to stand at the helm, and keep the BEE JOURNAL in the right course.
> J. E. POND.

◆

The Number of men working on the World's Fair buildings is now more than 6,000. On some of the buildings work is proceeding day and night.

◆

The Assistant Secretary of Agriculture, Mr. Willits, is in charge of the exhibit of that Department at the World's Columbian Exposition.

The Wiley Lie, about the manufacture of comb-honey by machinery, seems to almost possess elements of immortality, judging by the various forms in which it revives and re-appears before the reading public. The latest and newest "revised version" of that "old yarn" started years ago, is contained in the following, credited to the Philadelphia *Times*, and republished in the Clinton, Iowa, *Herald*, of March 26, 1892, and sent to us by Mr. E. J. Gunn, of Wall Lake, Iowa. The item in which is found the "lively ghost" of the Wiley misrepresentation, reads thus:

> MISDIRECTED ENTERPRISE.—The constant improvement of burglars' tools is hardly an uglier adjunct of modern civilization than the rapid progress in the variety and ingenuity of food adulterations. Eggs and apples, almost alone, are still above suspicion. Cloves, tea, ground coffee, vanilla, lemon-juice and mustards are nearly as frequently imitated as dairy butter. Cheese is filled with lard, and lard with corn meal. The abolition of sugar duties has failed to stop the traffic in glucose. Candy factories use "terra alba" by tons. With an admixture of an extract from hickory buds and ginger, common treacle can be made to resemble maple syrup sufficiently close to fool nine out of ten non-specialists.
>
> "Flavoring extracts" are made from such things as wood vinegar and coal tar, but the meanest tricks are those practiced by the venders of honey. A vile compound of glucose and stearic acid is poured into factory-made combs, and sold in dainty wooden frames, which in one case were found to consist of ligneous pasteboard—a triple combination of frauds paralleled only in a certain sample of "mustard," which an analyst found to be a compound of four different ingredients, two of which had, so to express it, been subadulterated.

It is astonishing to what a severe racking some scribblers, for the daily newspapers will subject their brains, in order to discover something that will deceive their readers. How different would be the effect of such items if the general public were well-informed concerning the *how* of honey-production, and could but see the utter impossibility of obtaining honey in the manner prescribed by such visionary, oyster-brained deceivers as are employed by some newspapers to fill up their space.

The very best service any of us can do, is to endeavor to counteract the evil effects of these prevarications, by placing before the public as much information as we can regarding the way honey is produced by the bees, and show that there is no foundation in fact for the many mean misrepresentations scattered broadcast by those who are ignorant and malicious.

◆

One of the most desirable bills introduced into Congress for this season is the postal fractional currency bill. It will, if passed, bring great relief to those who have to send money in the mails. It provides that after the first of next January no more postal notes shall be issued by the post-office department, but in their stead postal fractional currency should be issued in denominations of 5, 10, 25, 50 and 75 cents, and to be legal tender for all sums under one dollar. We hope that it will become a law. The postal notes are no more safe, and give much more trouble at both ends of the route. Let us have the fractional currency, by all means.

◆

Furniture Polishes.—A red polish for furniture is made as follows: 16 ounces oil of turpentine; 4 drams alkanet; and 4 ounces beeswax. Digest the alkanet in the oil until sufficiently colored; then scrape the beeswax fine, and form a homogeneous mixture by digesting over a water-bath. For a pale polish, omit the alkanet. For white polish, use 1 pound of whitewax, and 32 ounces solution of potash. Boil to proper consistency.

◆

Knife and Fork handles that may have become loosened, can be cemented again by using a mixture of four parts of rosin, one of beeswax, and one of brick-dust melted together.

The Editor has returned to his desk, and feels rested and invigorated. By husbanding his strength, he hopes to accomplish some of his daily work, and the rest "must go" to other hands. The many letters of sympathy and good wishes that have come to hand are duly appreciated, and help to make "life worth the living." The advice of Bob Burdette is timely, and should be followed: "Every day of my life," says he, "the evening is apt to find something on my programme that I haven't got to. I say, 'Maybe I won't do that to-morrow,' and as a rule, I don't. I go to sleep and forget about it. Every year closes with uncompleted work on my hands, and then that year ends that work. I'm not going to drag it along with me into the new year. I used to do that, so that about half the time I was working six weeks ago instead of to-day, and a dragging, wearisome business it was. When you die there will be unfinished work and raveled-out plans on your hands. Then what are you going to do? Take it to heaven with you, and bother and drag along with it there? Not much. Well, then, why not learn to drop some of it here? It is a lesson not so easily learned, but once learned, it is more refreshing than a glass of cool milk to the lips of the man with the grippe."

◆

T. F. Bingham was granted another patent on his bee-smoker on April 26, 1892. It is on a new fire plate and nozzle. The latter is thus described in the patent:

> In using a smoker in the management of bees, it is often necessary to force a volume of smoke down through the perpendicular combs. To do this with the line of smoke parallel with the length of the stove, requires that the stove be inverted or tipped from a horizontal to a perpendicular position, and when this is done, there is great danger of the hot coals falling from the nozzle down among the bees.
>
> To obviate this difficulty, and to facilitate the operation of the device, I have provided the supplemental nozzle or hood of angular form, which will direct the smoke vertically downward, while the stove is retained in a horizontal position.
>
> After the smoke has been used for a time, the stove becomes hot, while at the same time the fresh fuel must be put in to replenish the fire. It is rather a difficult and unpleasant task to open a hot smoker, and to render this simple and easy, I have provided the wire handle. This handle consists of a wire having one end secured in or to the funnel, and coiled about the contracted nozzle or neck of the hood a number of times. The outer coils are set out from the nozzle or hood, so that the air can circulate freely between them, and they serve as a handle by which the funnel may be removed to replenish the fire. The handle, being formed entirely of coiled wire, is simple, and not liable to get out of order.

◆

Robber Bees can be stopped, even when thoroughly under way, by wet straw or hay at the entrance. Pile it a foot thick all about the entrance, and then pour on water until everything is flooded. I have tried it a number of years, and this year saved a queenless colony thus when robbers were at it wholesale. The robbers did not attack it afterward.—*Exchange.*

◆

A Patent was issued on April 19, 1892, on a new bee-escape, to G. H. Ashworth. His third claim is as follows:

> As an improved article of manufacture, an escape comprising a case or tube, the top of which projects transversely beyond the sides of the same, said sides having sloping ends, the transverse bar arranged at one end of the case, near the top of the same, and a series of pendent guard-fingers loosely attached to said bar, and resting upon the bottom of the case, substantially as and for the purpose described.

◆

Catalogues for 1892, are on our desk from—

Wm. H. Bright, Mazeppa, Minn.
J. W. Bittenbender, Knoxville, Iowa.
F. C. Erkel, Le Sueur, Minn.

Slip Off an' Get Some Honey.

The days are gettin' hazy with the smoke o' forest fires,
An' they're warm, as well as lazy—for the mockin' bird perspires
A-singin' in the blossoms—how they strain their tender throats,
An' the hot sun shinin' on 'em makes 'em give us meltin' notes!

It's jes' the time for dreamin' of the cool an' shady nooks,
For rollin' up your breeches for a splash into the brooks;
It's wishin' time, it's fishin' time—it's time to take your ease
Where the locust sings soprano to the tenor of the bees!

O writer, leave your inkstand an' your drowsy, frowzy desk,
An' get out into the country, where the world is picturesque!
O man dead set for money! O toiler in the strife,
Slip off an' get some honey that will sweeten up your life! —Atlanta Constitution.

The Numerous Congresses to be held in connection with the World's Fair are creating wide-spread interest, and undoubtedly will be a very important feature of the Fair. According to the general schedule now prepared, the various Congresses under the several departments will be held as follows:

May—Music and the drama, public press, medicine.
June—Temperance, moral and social reform, commerce and finance.
July—Literature, science and philosophy, education.
August—Engineering, art, government.
September—Parliament of religions, denominational congresses, Sunday rest.
October—Labor, agriculture, real estate, merchants, etc.

These great departments are in charge of general committees, which, with the advice and suggestions of persons and societies interested, arrange the programme and select the speakers, with the approval of the President of the Auxiliary.

What time will be the most appropriate for the bee-keepers to hold their Convention on the World's Fair Grounds? It is now time to begin to talk and write about it, so that when they meet in Washington next September, it may be an easy matter to determine the time.

Queries and Replies.

Beginners and the Home Market.

Query 817.—In what ways can a beginner in the business avoid ruining a good honey-market already worked up by those of more experience?—Lucile.

Ask something easier.—M. Mahin.

Sell good goods, and practice square dealing.—Mrs. L. Harrison.

Profit by their experience, and help to keep the good market up.—A. B. Mason.

By dealing "on the square," and treating everybody fair.—J. M. Hambaugh.

Perhaps by following the plans by which they have succeeded.—C. C. Miller.

Consult and work in harmony with those who have already built up the market.—Mrs. J. N. Heater.

By reading, writing, and thoroughly informing himself at the start, just how and what to do to secure the finest product.—A. J. Cook.

Let those of "more experience" handle his honey for him, he giving them a cent or two a pound for doing this.—G. M. Doolittle.

A beginner should take the advice of the experienced man, and should not undersell him. Let him apply the "golden rule."—Dadant & Son.

By producing a good article, then finding what it is worth, and selling only at that price.—J. A. Green.

He can avoid it by having his honey in as nice, or nicer, shape than "those of more experience," and do not *undersell*.—J. P. H. Brown.

If the market has been marked up by others of more experience than yourself, you had better consult with those that have worked up the market.—E. France.

Never try to undersell the veterans, whose judgment as to the price ought to be better than yours. Compete with them in *quality* and neatness of package. —Eugene Secor.

By disposing of no honey in that market until he knows what good honey is, and then by selling only first-class honey, and at the price charged by the others.—R. L. TAYLOR.

By producing honey in the very best marketale shape. Never try to make sales by *underselling*, but rely entirely on the superior goods you have to offer. —C. H. DIBBERN.

Consult with the other party at once. A honey market is very easily ruined for a time by a novice. Use the utmost care in getting your honey ready for market, and do not try to market it too soon.—H. D. CUTTING.

Sell your honey somewhere else, would be one way. Another way would be to sell your honey to the parties you mention. There will be no trouble about you finding ways, if you have an inclination to find them.—P. H. ELWOOD.

Do not offer your honey for less than the market price, for others can fall in price as fast as you can, but get your share of patronage by offering a good article in attractive shape. Be honest and prompt, and you will stand a fair chance with the rest of the world.—S. I. FREEBORN.

Do not sell at ruinous prices to anybody. Fix your price, sell your honey early, and if it does not go off readily in the market on commission, the same commission you pay to the grocer will hire good boys to peddle it to your advantage. I can sell all I produce in this market in this manner, and get ready cash.—G. L. TINKER.

First, put no honey on the market (either comb or extracted) except such as is fully "ripened," having that rich, smooth, heavy consistency so much prized by all consumers of our product. Second, have it clean, neatly put up in attractive style. Third, do not place too much on any one market, at any one time. Fourth, keep up the price, as well as the quality.—JAMES HEDDON.

I do not think that a beginner need worry himself about the matter at all. Competition would cause no injury, unless prices were cut, and a beginner ought not to do that, for with a good market, a beginner ought to feel that his goods were of as much value as his neighbor's, and ought to be ashamed to try and cut under in a field that some one else had brought into good condition.—J. E. POND.

By following precisely the methods practiced by the experienced apiarist who worked up the good market. The way to avoid ruining such a market is to do business on an honest, *liberal* principle. Never sell an inferior article without a full understanding of its quality, and a liberal reduction of price to suit the article. Avoid all dickering pecuniousness in your trade. Nothing will ruin a honey "home market" as effectively as the *name* of being stingy, and a swiveled up little man. I have given away hundreds of pounds of honey in little cups and pans, to the sick and to the poor—white and black people alike—and, while it has been a pleasure to me, nothing has advertised my honey so effectively.—G. W. DEMAREE.

For that matter, I do not see why a beginner should produce any less desirable or marketable honey than the expert, especially if he begins right, and in these times of plenty of bee-papers and bee-books, I do not see how one could hardly start wrong. But, if you are so clumsy on the start that you happen to fall down and smash a crate of nice section honey, why, just slip over and give it to some poor widow, or some one else, that has no honey, and say no more about it. See? Or if this is not what the beginner wants, and he means that he does not wish to encroach upon his neighbor's market, I suggest they get together and settle it mutually, as the beginner, if he lives there, too, has some right to the market as well as the other fellow.—MRS. JENNIE ATCHLEY.

A beginner should read about the most approved methods, and adopt those which are the most practical and suited to his locality. Keep posted about the demands of the local honey market. Produce as much honey as possible of the "fancy grade." Keep the honey quotations up to a paying basis. Act in concert with the apiarists in the locality to elevate the pursuit. Maintain the prices already established. Put the honey on sale gradually, so as not to "glut the market," and expect success from the quality and attractiveness of the product.—THE EDITOR.

When Writing a letter be sure to sign it. Too often we get letters with the name of the post-office, but no County or State. One such came recently, and we looked into the Postal Guide and found there were places by that name in 13 States. Be sure to stamp your letter, or it may go to the dead letter office, in Washington, D. C.

Topics of Interest.

Spring Management of Bees.

E. L. PRATT.

Some time ago I explained my method of working bees by the "jumping and double entrance plans." They have proven so successful in quite a number of large apiaries in different parts of the country, that I give them again with what changes and additions that have been found advantageous in practical experience for two seasons. All who try this method are requested to made a report to the author with any suggestions that can be given from experience with them.

The first thing to be done in the Spring is to give the hives a thorough renovating. Look each colony over and see that it has a good queen and plenty of stores when equalizing operations commence.

For some reason the bees die off in some hives very much faster than in others, although the colonies were of equal strength in the Fall, and the queens equally prolific. Some queens do not do so well as others in early Spring, and unless such colonies are given some aid from the apiarist, they will amount to nothing all the season, as they cannot build up in time for the harvest.

I have found the jumping plan of equalizing the colonies as expeditious and effective as any I have ever tried.

I examine my colonies, and mark the very strong ones, and exchange stands with the weaker ones, jumping the hives over and across, back and forth, at intervals of about ten days, until I have them all of proper strength to store comb-honey, which means full of bees and brood, but very little honey.

All colonies that are found too weak to possibly build up in time, should be left out of the above operation, and set aside to be built up and re-queened later on. It is very important that all the queens be of a prolific sort, and the bees good workers, if you hope to make anything at handling bees for a living.

A colony covering three or four combs fairly well will do to work on this plan, and when a colony of this size suddenly occupies the stand of one covering six or eight combs, there is an influx of population to the weaker colony, which gives the queen in that hive courage, and she will at once start to fill with eggs all the comb available.

Two frames of the unsealed and very young larvæ should be taken from the strong colony and be given to the strengthened one as soon as sufficient bees have left to properly care for it, which will be in the afternoon, if the colonies were jumped in the morning. Leave as large a portion of the sealed and hatching brood with the strong colony, as such a large number of the bees are taken away by the change that it will not refill with young bees in time to cover the very young brood that is left. Here is where outside cases work in well, on cool nights.

We will now suppose that all the colonies are in good working condition. It is about ten days before clover opens, and everything is in readiness for a good crop of honey.

For illustration, we will suppose you have 4 good colonies of bees in prime condition, arranged in a group, one facing east, and 3 together in line facing south, but in different parts of the yard, if you please, the 3 in one place, and the fourth in another.

Ten days before the main honey-flowers open, remove colonies 1 and 3 (the two outside ones of the 3) and place them in the same relative position by the side of No. 4, so as to compel the working force from the hives 1 and 3 to enter No. 2, which should be tiered-up for extracted-honey, or arranged with two or three tiers of boxes with foundation starters. To prevent such large colonies from hanging out or swarming, they should be arranged according to the double-entrance plan, which is as follows:

Remove the top part of the front strip on a bound honey-board, and place it on a bottom-board with cleats, so that there is a bee-space above and below, with an entrance to each. Place the hives on top, and attach an Alley trap to the upper entrance, leaving the lower one open so that the bees can enter it from under the trap. By this arrangement there is always plenty of ventilation, and swarming, if it happens, is under control, as the trap will catch the queen, and the swarm will return to the hive.

It is interesting to watch a large colony of bees work through a double-entrance arranged in this manner. A large part of the bees on their way to the field make their exit through the trap above the zinc honey-board, while the loaded ones crawl into the lower entrance.

One will readily see that the ventilation with such an arrangement is perfect. The entrance is never crowded, and the bees going and coming do not in the least conflict with each other. By this arrangement, extra-strong colonies will hold together without the desire to swarm.

As soon as the bees begin to fly well again from colonies 1 and 3, or in about eight or ten days, they should be jumped back to their original position by the side of No. 2, and left in this position until after the harvest is over. Colony No. 4 will thus receive extra strength, and they should have extra storing room, and the double-entrance arrangement the same as was given to No. 2. If all the hives had supers started, they should be tiered over the colonies strengthened, for completion.

Having such an extra-large force during a good honey-flow, the same bees that would have worked fairly well in their different hives, will now show what honey-gathering is.

The amount of work and expense by this plan is reduced nearly one-half, and with such rapid storing by this extra-large force, the honey is all first quality. During a moderate flow honey will come in in such quantities that one is surprised—every comb sealed full, and attached firmly to the section.

After the honey-flow is fairly over, take every ounce of honey away from all the colonies. Extract what can be gotten at in the frame, and leave the bees with as little on hand as possible, as they will not rear a large number of bees that will be consumers only. Then if you have a good Fall flow, no feeding will be necessary.

The same operation can be gone through again later in the season with the view to leaving all the colonies in good condition for Winter. Unless the Fall flow is unusual, such as from buckwheat, do not catch up the force from hives 1 and 3, but jump them simply for equalization, so that each may then gather enough for Winter stores.

All colonies that have been used for nuclei, etc., can now be doubled in to advantage. Do not try to winter any but strong colonies with plenty of stores. If the hives are properly arranged for expelling the moisture, there will be no trouble about such colonies coming out well in the Spring.

If wintered on summer stands, outside cases should be used, and the hives should stand about 14 inches from the ground. If possible, select a sheltered spot for wintering the bees outside.

Beverly, Mass.

Bee-Keeping for Women.

MRS. L. C. AXTELL.

Tons of honey go to waste every year for want of bees to gather it. Women often complain that they cannot make as much money as men, but in this pursuit they have an equal chance, and there is nothing about it but the weakest can do with a very little help from a brother, or father, or husband, and if they have a fair amount of health they can do all the work themselves. I do not write from theory, but from actual experience, having taken care of more than 100 colonies each year myself for many years.

I suppose it is the fear of stings that prevents many from engaging in it, but by clothing in such a way that a bee cannot touch you, there need not be fear of stings.

Every farm ought to contain one or more colonies of pure Italian bees to furnish the family with that most delicious sweet—pure honey.

The sons of the family care for the farm and stock, and how appropriate for the daughters to care for the chickens, turkeys and bees.

They do not require that constant care that chickens do, but from a half hour to one hour's work from six to a dozen times a year is all the time required to care for a colony which ought to bring as an average twenty or more pounds of honey each year.

Honey is very healthful, especially in all diseases of the throat and chest. It is very handy to have in the house to prepare medicine in; a cup of hot honey, sipped one tea-spoonful or so each hour, is excellent to relieve one of a cold.

It is very handy to have in the house, as it requires no cooking to prepare it for company, and it always sets the table off to lay a nice cake of it upon a glass dish, and also to fill a glass tureen with candied honey. It requires very little more food to set a beautiful table for tea; it looks very pretty and tempting to cut it up in small squares and dish out in glass sauce-dishes to each one's plate, pouring over it a rich cream.

Some think they cannot eat honey, but if they will try white clover honey, candied, with cream or milk poured over it, I think they will find that it will agree with them.—*Farmers' Voice.*

Roseville, Ills.

Grading of Comb-Honey.

W. L. MARSHALL.

I will try to give our Nebraska rule for grading honey, both comb and extracted. We do not think hard of any who will try and establish a set of rules, especially for their own benefit, and, therefore, we cannot blame those who live in the beautiful basswood locality of Wisconsin, or the clover fields of other places, for thinking that their white honey is the only honey that should be put in first grade.

"White," in this State, does not amount to much; that is, it does not wear well; and for any one to try to make a Nebraskan think that your white honey is as good as our heart's-ease honey, would be sheer nonsense.

If I were to send one of you to the store after some good butter, and would tell you to get nothing but the best, would you inquire for the whitest butter they had, without paying any attention to flavor or odor? I think not. You would be very apt to taste it, and smell of it, and then take the kind that tasted best to you.

I do not believe you would mark all your nice red apples "third class," or your nice yellow peaches "second class" just because they did not happen to be white.

Now, then, looking at the matter in this light, let me give my way of grading comb-honey.

My best grade is called "gilt edge," and contains nothing but the finest and best of 4¼x4¼ sections, filled with the finest flow of heart's-ease honey, nicely capped, and with even surface. Grade No. 1 may contain any other honey, such as basswood, clover, golden-rod, Spanish-needle, orange, buckwheat, etc., but must be well-filled, nicely capped, and honey to be of good body. Any sections that have not been well filled, or having crooked combs, or in any way not up to No. 1, should be kept at home, and by doing this you will always have a good market for your honey.

Extracted-honey, in this State, is graded much the same as comb-honey, by placing heart's-ease at the head of the list; then follows basswood and clover, then sage.

In order to prove the quality of our Nebraska heart's-ease honey, I am willing to furnish one 4¼x4¼ section filled according to my idea of "gilt edge" honey, and let any man, or number of men, east of the Missouri river, or west of the Rocky Mountains, furnish one 4¼x4¼ section filled with clover, basswood or sage honey, then send them to any responsible person, who is not a producer of honey, and let him compare, and then judge.

Crab Orchard, Nebr.

Prevention of After-Swarms.

S. E. MILLER.

On page 386, Mr. Theodore Heiss says: "By introducing a virgin queen, about two days old, all queen-cells will be destroyed by that queen."

I wish to say that I fear this will not always be the case, for often when the bees are intent upon swarming a second or third time, they will not allow even a queen, hatched from one of their own cells, to destroy the remaining queen-cells, neither will they allow more than one queen to emerge from the cell even though many of the queens have gnawed away the cappings, and are ready to step out and assert their rights.

Again, Mr. Heiss says it advances brood-rearing from 10 to 15 days. I do not see how this would advance brood-rearing as much as 15 days, for, as a rule, colonies have sealed queen-cells when they swarm, and the furthest advanced of these will hatch in about 7 days or less. Add to this 2 days, the age of the virgin queen that he proposes to introduce, and it give us 9 days.

Allowing that each of these queens would mate when 5 days old, and commence laying in 5 days more (which is quite reasonable to suppose), we have gained only 9 days, for the one is only 9 days older than the other.

But the point that I wish to get at is this: In my opinion and experience there is nothing gained by advancing brood-rearing at such a time. Generally bees swarm just when we have the heaviest flow of nectar, which lasts from 3 to 6 weeks in most localities. In the majority of localities I should say less than 4 weeks. Therefore, the bees reared from eggs laid at this time, instead of being producers, will be only consumers, both in the brood state and after they have hatched, for we all know that it takes 21 days from the time the egg is laid until the bee emerges from the cell. Add to this from 10 to to 14 days (the age at which bees commence to gather nectar), and you will see that these bees only come on the stage of action in time to help consume what has been gathered by the older ones, and at a time when there is little or nothing to be gathered. Locality, length of honey-flow, and other circumstances, should guide us in this.

My way of preventing after-swarms is one that is well known, and I think as good as any. Look through the hive and examine each comb carefully after the swarm is cast; select one of the best cells and leave it, and destroy all others. In about 5 days more look over the combs again and destroy all cells that have been started, leaving of course the one first selected. By the time this queen hatches and commences to lay, the bees will have given up the idea of swarming, unless the colony is too crowded, or the honey-flow continues longer than usual.

In this way you have a good queen reared by natural swarming, and under normal conditions, that in all probability will be far superior to any queen reared by most of the artificial or unnatural means now employed by bee-keepers. Should this colony from any cause, such as unexpected flow of nectar, cast a swarm later, the swarm will be equal to a prime first swarm, and cannot properly be called an after-swarm.—*Farm, Field and Stockman*.

Bluffton, Mo.

Four and Five Banded Bees.

J. E. POND.

I see by the BEE JOURNAL that an idea has obtained among some, that "four and five banded bees" are a new product. One man says he bred such in 1890. Now, as a matter of fact, such bees have been bred for years. The first I ever knew or heard of were bred in my own apiary in 1869, from a queen I bought when just mated, from Wm. O. Sweet, of Mansfield, Mass., in the Spring of 1869, and sold in the Summer of 1870 to Henry Alley, of Wenham, Mass., the "oldest queen-breeder" now alive, I believe.

The mother of the queen I sold to Mr. Alley was the progeny of an imported queen, and was bought by Mr. Sweet from a Connecticut queen-breeder.

Since that time the "Albinos" have been boomed to a big extent, but I never saw any so-called "Albinos" that were yellower than those I mention as being bred in my own yard.

I have no desire to discuss the "Albino" question; I simply state a fact coming within my own observation. I will say, however, that those four and five banded bees, and they were a majority of the colony, were nearly as gentle as flies, were large and hardy, and possessed as good honey-gathering qualities as any bees I ever saw.

I no not know whether others found "four and five banded bees" earlier than the time I have stated, neither do I write the above as a claim of priority in the matter, but as Mr. Wallace, on page 551, asks "who was the first to produce them?" I answer as above to give what light I can on the matter.

North Attleboro, Mass.

Some Spring-Time Bee-Notes.

C. H. DIBBERN.

When we wrote our last notes for April 1, the outlook was rather gloomy for both bees and the clover, as the weather was dry, with hard freezing nights, and thawing days. Since then the prospects have improved greatly, as we have had plenty of rain, and it now turns out that the white clover has not been greatly damaged. All danger from severe freezing is now over, and bee-keepers can once more look forward to an old-time season.

The bees came out of winter quarters in a very discouraging condition, about one-fifth being dead, and the rest in not a very flourishing condition. The Mill Creek apiary was put out on March 28, fully two weeks earlier than last year, and were found in rather better condition than those at the home place. This we attribute to the fact that they were supplied with a better quality of honey.

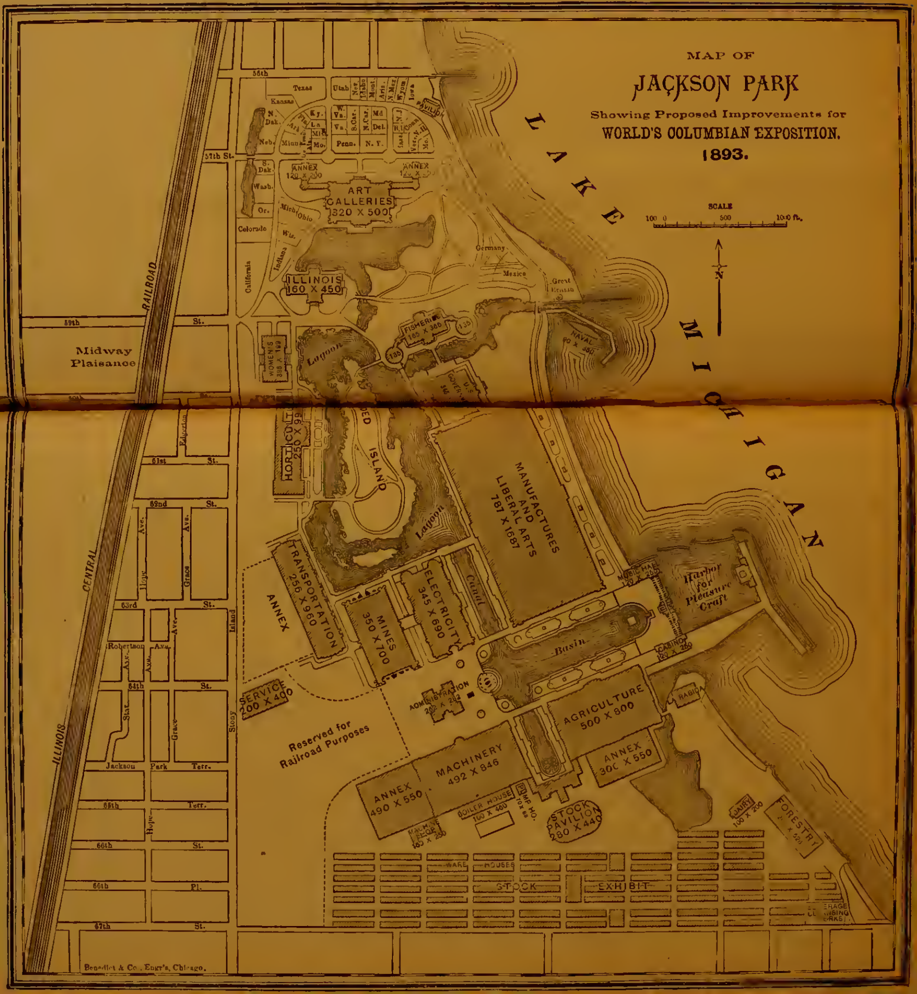
That cave cellar seems to be a better place, too, than the cellar we have under the honey-house, for some reason. One reason of this, we think, is that the Mill Creek cellar is covered over with some 18 inches of soil, with a roof on top of that, thus maintaining a warmer, and more even temperature. The brick walls at the home place, seem to draw a great deal of moisture, and during the Winter a good deal of mold collects.

Another year we shall run a stove-pipe to the bottom of this cellar, and connect with the chimney above for ventilating purposes. This we think will help matters very much, but of course the great trouble this Winter was the honey-dew for Winter stores.

(Continued on page 610).

THE WORLD'S COLUMBIAN FAIR GROUNDS.

Edwin S. Mead, in his Editor's Table in the May issue of the *New England Magazine*, has this to say about Chicago and the World's Fair: "Chicago, with an unbroken front, and what seems to us a most energetic 'public spirit,' secured the prize which will enable her to figure before the civilized world for the next two years as our Capital. The energy, and comprehensiveness, and wisdom, and good taste, with which the men of Chicago have completed their preliminary organization, and are pushing their great work, are exemplary and amazing. Whatever trifles may properly be criticised—as where in so stupendous an enterprise may they not be—in the main, Chicago is managing this matter in a true and great way, showing just that spirit and capacity and aim which the captious critics denied her.


MAP OF
JACKSON PARK
Showing Proposed Improvements for
WORLD'S COLUMBIAN EXPOSITION.
1893.
SCALE
100 0 500 1000 ft.
N
LAKE MICHIGAN
ART GALLERIES 320 X 500
ANNEX 120 X 200
ILLINOIS 160 X 450
WOMEN'S 398 X 199
FISHERIES 165 X 365
U.S. GOVERNMENT 345
NAVAL 90 X 350
Germany
Mexico
Great Britain
Lagoon
WOODED ISLAND
HORTICULTURE 250 X 998
MANUFACTURES AND LIBERAL ARTS 787 X 1687
Harbor for Pleasure Craft
MUSIC HALL
CASINO 120 X 260
Basin
Canal
ELECTRICITY 345 X 690
MINES 350 X 700
TRANSPORTATION 256 X 960
ANNEX
SERVICE 200 X 400
ADMINISTRATION 262 X 262
Reserved for Railroad Purposes
AGRICULTURE 500 X 800
ANNEX 300 X 550
MACHINERY 492 X 846
ANNEX 490 X 550
BOILER HOUSE 100 X 460
PUMP HO. 70 X 85
STOCK PAVILION 280 X 440
DAIRY 100 X 200
FORESTRY
RABIDA
STOCK EXHIBIT
WARE HOUSES
PAVILION
Texas
Kansas
Utah
N. Dak.
S. Dak.
Wash.
Or.
Colorado
California
Nebr.
Minn.
Ky.
Va.
W. Va.
S. Car.
N. Car.
Md.
Del.
Penn.
N. Y.
Mo.
Mich.
Ohio
Wis.
Indiana
Mont.
Ariz.
N. Mex.
Wyom.
Iowa
Idaho
Nev.
R. I.
Conn.
N. J.
Vt.
Ill.
56th
57th St.
59th St.
Midway Plaisance
61st St.
62nd St.
63rd St.
64th St.
65th Terr.
66th St.
66th Pl.
67th St.
Edgerton
Hope Ave.
Grace Ave.
Robertson Ave.
Stat Ave.
Jackson Park Terr.
Stony Island
ILLINOIS CENTRAL RAILROAD
Benedict & Co., Engr's, Chicago.

One thing we have discovered this Winter, is that the bees have consumed about twice as much of the honey-dew as they usually do of good honey. For this reason we have lost a few good colonies from starvation, soon after putting them out.

FEEDING PARTLY-FILLED SECTIONS.

Since about the first of April we have been doing some liberal feeding, and hope to build up the bees rapidly in that way. We have plenty of sections partly filled with honey-dew and dark honey, that we will be glad to get rid of, and this we will give back to the bees as fast as they can take care of it.

We had intended to give a few sections to each hive every night when the weather was warm, but soon found that it was entirely too slow. Besides, this would expose the sections to rain and robber bees too much, if not closely watched.

We now put 40 of these partly-filled sections in a case, put a queen-excluding honey-board on both top and bottom, and put the whole under the hive body. You see the upper board will prevent the queen from laying eggs in the sections, and the lower board will in a measure be a guard against robber bees. We do not know just how long it will take the bees to empty the cases, but do not think it will take over a week or ten days in fair weather. We expect to feed from 30 to 40 lbs. to each colony, by the time white clover blooms.

We have tried feeding honey in sections and brood-combs, by exposing a good deal of it at a time, during pleasant days, but do not like it. If the honey is exposed some distance from hives, there is no great trouble from robbing, neither do they get cross, as they usually do when robbing. They tear the combs badly, however, and the colonies that should get the most, generally get the least. Then, too, should a shower come along, the combs and sections usually get wet, and the sections become loose-jointed and weather-stained.

LOSS OF BEES IN WINTERING.

About 20 per cent. of our bees have died in wintering, which is the heaviest loss we have had for many years. However, we hear of others losing nearly all, so perhaps we have not fared so badly after all. Even bees that were well packed out-doors where they could fly every few days, have suffered nearly as badly as any. Now, if all the trouble was not caused by the honey-dew, will some one tell us what did? The cold certainly did not kill them, as we have wintered bees almost without any loss in much colder weather.

SPRING PACKING AND FOUNDATION.

To help the bees to build up rapidly, we are doing some Spring packing. A part we are packing on from four to six combs in a second story hive. Others we give a section-case filled with leaves, and dry blue-grass. This packing will be left on until we want to put on the cases for surplus honey.

If a part of your bees have died, consider yourself as lucky, clean up the hives, and store them away for future use. All the good, straight worker-comb should be carefully saved; if there is much drone or old crooked black comb, it had better be rendered into beeswax. It is very difficult to keep brood-comb over an entire Summer without being ruined by the moth. Better use up all the old combs for early swarms, as the bees can take much better care of them than we can.

Dadant says in his catalogue, that he does not recommend any foundation for large, deep frames, without wiring, excepting the heavy. Correct. We are now melting up combs where the foundation stretched so badly that about one-third is drone-comb. They are also apt to be crooked and wavy at the lower edge.

A FEW APIARIAN EXPECTATIONS.

This year we expect a crop of nice clover honey. We expect to have the bees store it in snow-white sections, filled with extra-thin foundation. We shall place the sections in cases holding forty, protected by wood strips, so the bees cannot touch the outside of the sections to soil the wood. We shall use wood separators the full width of the sections, to compel the bees to build straight combs.

When the bees swarm, we expect the bees to hive themselves, whether we are present or not—no one need stay away from church on their account. When the honey is ready to come off, we shall slip one of our new bee-escapes a under case, and let the bees file out. When convenient we will carry the honey in on our honey-cart. We shall pack it into nice new shipping-cases, and there will be little scraping of sections to do. We shall very carefully brand each case with the kind of honey, weight, etc. Carefully put a tag on each case, with shipping directions, and carefully haul it to the station, and then—trust it to the mercy of the freight smashers.

Finally, when the returns come in, maybe we will have money enough to buy shoes for wife and babies.—*Western Plowman.*

Milan, Ills.

Queens with Clipped Wings, Etc.

H. C. M'KENZIE.

I would be pleased to have the following questions answered in the AMERICAN BEE JOURNAL:

1. I want to clip my queens' wings this Spring, provided I can do so without running any risk of losing them, Would it be possible, if their wings are clipped, to catch them as they come out by setting a box, with a solid bottom, and sides made of wire screening extending up 3 or 4 inches, and turned over 1 or 2 inches at the top toward the inside, and placed under the alighting-board?

My idea is, that when the queen comes out with the swarm, she would fall off of the alighting-board into the box, as it would extend all around the alighting-board, and that with the edges turned in at the top, she would not be likely to get out before she was found. Is this practicable?

HONEY FOR COLONIES IN BROOD-REARING.

2. How much honey will it take to last a colony of bees, that will occupy 5 Simplicity frames, 2 weeks in brood-rearing time, in Spring? How many square inches of comb surface, counting both sides of the comb?

Steelton, Pa.

[Dr. C. C. Miller, of Marengo, Ills., to whom the foregoing questions were referred, replies to them as follows:—ED.]

1. Your plan is one devised years ago by the lamented Quinby. Although tried by a good many, I do not think any one uses it now. I am not sure just why it did not work satisfactorily. Although I never tried it myself, I should expect the queen, sometimes, at least, to crawl up over the horizontal wall of the "queen-yard," as this box was called. Often the queen does not attempt to leave by going straight forward in the direct line of the mass of workers, but climbs up the sides of the hive, in which case she might not get into the queen-yard at all.

But if you want the queen imprisoned when she issues, you can accomplish it more satisfactorily by the aid of the Alley queen-and-drone trap, with the advantage in this case that when the queen issues she may be kept there in the trap, so that you may find her there in the evening; whereas with the queen-yard you may not know anything about the issuing of a swarm, as there is nothing to hinder her from going right back into the hive.

With a single colony of bees, or with colonies far enough apart, I should feel pretty safe about a wing-clipped queen without any queen-yard, for in the majority of cases she would return to the hive, or, if she should not return, you would be likely to find her at no great distance with a cluster of workers.

2. I have several answers to your second question. One answer is: More than you would think. If you have never given the matter close attention, you would be surprised to find how much honey is used in two weeks' brood-rearing, when a colony is doing its level best. I have sometimes found a colony entirely destitute of stores, when two weeks previous they seemed to have abundance.

Another answer is: Your question is rather indefinite. A colony may occupy five frames, and have the whole five filled with brood, or there may be no more brood than could be crowded on three frames. And of course there may be a good deal of difference in the number of bees.

But perhaps the best answer is: I don't know. Perhaps some of the fraternity have been making careful observations on this point, and can give us some definite information. To give them a better opportunity, I will make a guess, and my guess will be open for correction. I should estimate that a colony well occupying five combs with brood, might use in two weeks' time 200 square inches of comb-honey, counting both surfaces, if the comb was not more than an inch thick.

At first sight, it may seem that very little experimenting might easily determine the exact amount, but I am afraid it would not be so very easy a task. For the amount consumed not only involves that which they take from the combs of last year's storing, but as well that which they gather from the flowers. If there should be no honey gathered from the flowers, then it would be comparatively easy to decide how much had been used from the combs, but in that case breeding would receive a heavy check, and less than the usual amount of stores be used.

Supposing that my guess of 200 inches is correct (and it may be very wide of the mark), it does not follow that 200 inches would ever be necessary, and I do not think it would. If, for example, fruit bloom is yielding well, there may be more gathered every day from that source than is used in brood-rearing. On the other hand, if nothing is yielding, less brood will be reared, and less than the 200 inches will be required.

Whatever may be the true answer to the question, I am not so sure that it would be so very useful to know it, for I believe it is best at all times to have quite a margin ahead, and I believe in having in the hive at all times a good deal more honey than you are sure they need.—C. C. MILLER.

Mr. Enas and California Bee-Keepers.

W. A. PRYAL.

California bee-keepers of a few years ago knew Mr. J. D. Enas quite well through his writings to several of the bee-papers, and the press of that State. He lived on a mountain ranch some four or five miles out of Napa City, in a region where grapes and other fruits grew to perfection. It was while growing fruits and farm and garden truck that he discovered that bees did well in the hills of Napa county.

He increased his few colonies to many, and in time had a respectable apiary, that is, from a northern California point of view, for it must be remembered that the central and upper portions of the State are not noted for producing bees or honey to any great extent. His honey was of a very excellent quality, and as he put it on the market in the most gilt-edged form, it sold readily at a fair price.

Through Mr. Enas' writings he began to receive requests for hives and other supplies. He was not in the hive business, not having the machinery to make them. Still he set to work to build up an apiarian supply trade. The business expanded until at the time of his death, four years ago, it was fairly large, and gave promise of being the largest in the State. He had purchased hive and section making machinery, all to be operated by steam power. So important had his bee and supply business become that the farm and garden were neglected; in fact, it paid to let them go to look after the former.

When he died, he left all this machinery, and a large stock of extractors, foundation mills, smokers, and other implements. The supply business could not be kept up, for there was no one to attend to it, except his wife and daughters. They were unable to do so, and consequently the supplies were left unsold, and the machinery unused. The ranch was attended by hired help, and sustained the family.

But a sadder blow yet remained for this family. The children's cup of sorrow was not yet emptied to its dregs. This loss came to them last November, when the mother—the widow of the bee-keeper who did so much for the Californian apiarian supply business, died! She left five children, nearly all girls. This stroke of Grim Death was the signal, as it were, for the family to break up. The home of the Enases—the home of the honey-bee, and contentment in the Napa hills—was to be left, perhaps for ever.

Most of the children went to live with their uncle in San Francisco, and some with a married sister in Oakland. The ranch was rented out, pending the settlement of the estate.

Some 9 or 10 years ago it was my pleasure to make Mr. Enas' acquaintance in Oakland, while he was on a visit to that city. I found him a pleasant and intelligent New England gentleman, and I should judge that he was then about 55 years of age. I had never met any member of his family until the present week. It was but a few days previous to that event that I was apprised of the death of Mrs. Enas. From the daughter, I then met, I learned that there was a large quantity of supplies, all in good condition—in fact, nearly all new, which, she as administratrix of the estate of her mother, wished to sell at considerable sacrifice.

I write this unbeknown to the young lady mentioned, in truth, unknown to any of the family, and I wish to suggest to the bee-keepers of this coast, that here is a case where they have an excellent opportunity of showing that fraternal spirit which exists in the breast of all true bee-keepers, especially among Californians, who are particularly kind-hearted. Here is a chance of helping these unfortunate children, and in a way that will not smack of charity.

There may be articles among the bee-supplies which you need, and you will be doing well to write and find out what supplies are offered, and if you find what you want, send for it. They are all offered at great bargains.

This case should appeal to us all. Kindly remember it.

Address Miss M. E. Enas, 119 Hill St., San Francisco, Calif., for any information desired.

Statistics on Honey, Etc.

JOHN HANDEL.

I was much pleased at the way you, Mr. Editor, expressed yourself in regard to the proposed bounty on sugar, on page 439. Here is an article which I wrote for the Savanna *Journal*, and was published on March 10, 1892, on the unfairness in reporting the honey industry:

"How the annual agricultural statistics are gathered, by whom, and for what purpose, are questions which the producer should consider. That a certain class is benefited by the act, I do not doubt; that it is not the producer is a fact which no one can deny. Why our agricultural and home papers publish the reports free of charge, is what puzzles me. That some of these reports do not come anywhere near the truth I can prove. That most of them were not intended to be true I have reason to believe.

"To show why I complain, I will take for example the official report of the amount and value of honey produced in Carroll county in 1891. Although I acknowledge that that year was a poor season for honey, yet if you will excuse me this time for 'blowing hard,' I will say, and I am able to prove that my crop alone will amount to more than that report (as published in the papers) gives the whole county credit for. If the same misrepresentation is practiced throughout the Union, as Carroll county has done in reporting her honey crop, then we need not wonder why Uncle Sam was persuaded to disregard our industry, and combine with the manufacturer of sugar to crowd this insignificant competitor to the wall. It is only by misrepresenting our industry that Uncle Sam agreed to put his hand in my pocket and take out a part of the profit and give it to my competitor, the sugar manufacturer.

"Now, I am not lobbying for a bounty on honey. The bee-keepers are, as a general thing, as honest and industrious as the bees they keep, and are able to stand their ground even against cut-throat competition. What we demand is an honest count of the value of our product, and if that shows that the industry is not worth protecting against robbers, then we will step out and take our chances with other small fry. In the meantime the people of this country should haul in that shingle which reads, 'Equal rights for all, and special privileges to none.'"

Savanna, Ills.

Trade-Mark for Bee-Keepers.

THOS. JOHNSON.

I have read some of the correspondence to the BEE JOURNAL in regard to establishing a uniform trade-mark for marking honey in different forms, and some urged that the Bee-Keepers' Union should take some action in regard to the matter. I should bitterly oppose such action, for the reason that such mark would be very quickly used by every counterfeiter of honey, if there are such.

I use three rubber stamps in my business. The first I stamp on all correspondence, which prints my name and address, and business.

I purchase the best No. 1 sections, made of the whitest lumber, and stamp all sections with "Pure Comb Honey, from," etc. In putting up extracted-honey in different forms, I use a stamp reading "Pure Extracted-Honey, from," etc.

The three stamps, one ink-pad, and one bottle of ink, cost $3.25, delivered at my express office.

The foregoing stamps I use for my own private trade-mark, and I ask no other.

Right here I want to call attention to the following facts:

You all have more or less good ladies in your immediate neighborhood, that have the reputation of making the best butter (clean and neat). When they take their butter to market, you all know that it commands the best price, and sells at a premium. Furthermore, I have seen some merchants buy the article of a few pounds, and sell a few hundred pounds, and not 10 per cent. of the butter he sold was as represented, for the reason the good ladies had no way to distinguish their butter from any other. Just so with the honey trade.

You have all ample time to prepare for the honey flow and trade for the year

1892. Select your own private trademark, and put nothing but a No. 1 article on your market, and you will soon find out that your private mark will be your protection, and a guide for the consumers to go by. Pretty soon you will find them saying, "I would rather pay 25 cents a pound for Mr. A's brand of goods than pay 10 cents for something that I do not know who produced it."

I caution you to be sure not to equalize the stores, and feed sugar to your bees while there is a honey-flow, so that you can "back up" your honey, and prove to your customers that it is as represented.

Coon Rapids, Iowa.

CONVENTION DIRECTORY.

Time and place of meeting.

1892.
May 11.—Ionia, at Ionia, Mich.
H. Smith, Sec., Ionia, Mich.

May 12.—Connecticut, at Hartford, Conn.
Mrs. W. E. Riley, Sec., Waterbury, Conn.

May 17.—Northern Illinois, at Harlem, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

May 28.—Haldimand, at Nelles' Corners, Ont.
E. C. Campbell, Sec. Cayuga. Ont.

Oct. 7.—Utah, at Salt Lake City, Utah.
John C. Swaner, Sec., Salt Lake City, Utah.

1893.
Jan. 13, 14.—S.W.Wisconsin, at Boscobel,Wis.
Benj. E. Rice, Sec., Boscobel, Wis.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—The Editor.

North American Bee-Keepers' Association

President—Eugene Secor..Forest City, Iowa.
Secretary—W. Z. Hutchinson....Flint, Mich.

National Bee-Keepers' Union.

President—James Heddon ..Dowagiac, Mich.
Sec'y and Manager—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Bees in Eastern Iowa.

I put into winter quarters, last Fall, 66 colonies of bees in good condition. Some were put into the cellar, and some in a house I built as an experiment. I have now 38 colonies left. I could not see any difference in the cellar or house wintering, as the loss was about equal. I never had losses other years when they had food enough; but this Spring I had colonies die with a gallon of bees and 30 pounds of honey. I cannot account for it, and I find I have something to learn yet. I would like to hear reports from other eastern Iowa bee-keepers.

Thos. O. Hines.
Anamosa, Iowa, April 22, 1892.

Health, Wealth and Contentment.

There are three things that every bee-keeper needs, and the greatest of these is contentment. Doolittle's book on queen-rearing, and the American Bee Journal will make you *wise*, because they are full of *wisdom*; *wealthier*, because they teach how to produce the largest crop of honey, and how to rear the best of queens; contented, because you will be satisfied that you will have the best. The bee-keeper who has the right kind of wisdom never makes the same mistake twice.

Buffalo, N. Y. J. W. Tefft.

Clamp for Standing Frames.

I send you one of my clamps (No. 2), adjustable to 8, 7, 6 or 5 standing frames, for any hive now in use. It is simple, cheap, strong and durable. I have tested it to my satisfaction, and find it uniformly safe in reversing or handling hives in any way. I think it ought to satisfy any one who wants a little comfort in working among his bees. Ernest Gunn.

Wall Lake, Iowa.

[This ingenious contrivance consists of an iron ratchet and two pieces of bent wire. It will hold the frames tightly, and can be made for a trifle. It is placed in our Museum.—Ed.]

Bee-Keeping in Tennessee.

I have been located in the region of the Cumberland mountains for four years, using the box-hive. The second year I used the one-pound sections, 27 to the case, which I put on top of the box-hive, after boring a 2-inch auger-hole through the top of the hive to permit the bees to pass into the section-case. I found even this a great improvement. My bees averaged about 70 pounds per colony. I now have 52 colonies, having lost only 2 colonies the past Winter. We have four months of working season for bees here, with a fine variety of forest flowers—first the black locust, the poplar, basswood, sumac, and sourwood, all of which are plentiful. I have purchased 300 acres of forest near some fine clover farms. My bees are all blacks except 2 colonies, which are said to have produced 100 pounds of comb-honey each the past season. I expect to give bee-keeping a fair trial.

W. M. Scruggs.

Tracy City, Tenn., April 16, 1892.

Bee-Keeping in Oklahoma.

I have 4 colonies of Italian bees in good condition by feeding last Fall. I think this is a pretty fair bee country now, and it will be better in the near future, owing to alfalfa, which, I think, will be a staple crop here. There is a continuous light flow of wild honey from March to November. First is elm; second, wild plum; third, dwarf wild plum, and plum and redbud all together; fourth, the dwarf dogwood; fifth, a species of dwarf willow, in May, which yields heavily for about 20 days; then we have the "chitem" tree, which yields nectar quite freely in July. We have various wild flowers that yield more or less all through the Summer, and plenty of golden-rod in the Fall. Bees did not do very well last season, on account of too much rain in June and July, and too little in the Fall.

Rufus Williams.

Crescent City, Okla., April 25, 1892.

Changeable Weather—Basswood.

During the past Winter the weather was very changeable here, and in January my bees were very uneasy; I think that was the worst month with bees here. I put 50 colonies into the cellar, and took out 28, and they are down to 25 now. Some of my bees died with lots of good honey in their hives, and a good part of them run short of stores. They all had as many pounds of stores as the Winter before, and one year ago my bees came through in good condition. Mr. Snow, one of my neighbors, put in 125 colonies last Fall, and has now 65 left. The wind has been in the east nearly all the time here for the last 30 days, and so chilly that it would take the native Punic bees to stand the bleak winds this Spring Heavy colonies are all right, but the weak ones are starving with the cold.

I see on page 544, Mr. J. C. Lillibridge thinks the basswood yields must be larger in Illinois than in Pennsylvania. I am not acquainted with Mr. Lillibridge, but I was in Port Allegany, Pa., 12 years ago last New Years, and I used to live in Eldrid, McKean county, Pa., before the war; if I remember rightly, the most of the honey timber is hemlock trees, with other timber, that bees do not get much honey from.

Mark D. Judkins.

Osakis, Minn., April 27, 1892.

No Other Fills its Place.

I cannot do without the American Bee Journal. I take four other bee-papers, but the Bee Journal comes once a week, and none of the others fills its place. Bees are swarming now.

J. D. Givens.

Lisbon, Tex., April 20, 1892.

Wintered Fairly Well.

My bees did fairly well the past Winter, though I lost 25 per cent., but had I been home to look after them I think I would not have lost so many, if any. It is a very cold Spring here; the fruit is just beginning to blossom. I hope we may have a better season for honey than the last was.

D. E. Norton.

Independence, Mo., April 28, 1892.

Prefers the Italian Bees.

I notice on page 549, that Mr. P. D. Jones says that the black bees are the best for comb-honey, yet he will keep on buying Italian queens, when he is convinced that the blacks are the best, and they are the cheapest by far, ranging in price from 25 cents to 50 cents each. How does he keep his black bees pure? I will admit that a good hybrid bee will gather nearly as much honey as an Italian, and more than any native bee of America. I wonder if Mr. Jones' black bees do not build "steps" in their comb-honey, or does he have a continual honey-flow? If not, I think his comb-honey is very wavy, caused by the bees capping cells not drawn the same length as those in a flow of honey; and, above all, the black bees will let the moth into their hives, besides swarming to death. These are my reasons for not preferring the black bees, and I do not order black queens, because I think the Italians are the best.

F. C. White.

Farmers' Valley, Nebr.

Wavelets of News.

Which Way to Face the Hives.

Hives should face the east or southeast, should be painted outside, but not inside (white is the best color), and if possible should be protected from the north and northwest winds with some kind of windbreak. Bees do better in the open sunshine than in the shade, but we do not work with them when the mercury registers over 100°.—*Exchange.*

Prompt Work.

Plan your season's work in advance, as far as you possibly can, and when your plans are laid, make preparations for carrying them out promptly. Do not put off the manufacture or repair of hives, stands, sections, or anything of that sort, until the very moment they are needed, for then you will either have to do without them entirely at the time they are most desirable, or stop in the midst of other important work, to do a little piece of business that should have had attention six months ago.—*Exch.*

One and Inseparable.

In England, a fruit-grower was surprised to find that in one corner of his garden, in which were placed colonies of bees, the trees were heavily laden with fruit, while those more remote had set very sparingly. Then he called to mind the circumstance of its being very dark and foggy during the blooming of the trees, so that the bees flew but a short distance from their hives.

The proprietor of a cherry orchard in California found that his trees did not bear remunerative crops after the fiat of the raisin-growers, banishing the bees to a distant canyon. Being convinced of the necessity of bees to fertilize the bloom, he procured some colonies, located them in his orchard, and then realized satisfactory returns. Horticulturists and apiarists are like the American Union—one and inseparable.—*Exchange.*

Handle Bees Carefully.

In handling bees, the greatest possible care should be used not to crush any of them, not only because the life of every bee is valuable, but because if you crush a bee she gives off the poisonous smell, and this irritates her companions and they will become cross, which will result in a person getting stung badly if he is not well protected with a bee-veil, etc.

In manipulating hives, sections, etc., do not jar the hives any more than you can possibly help, for this irritates the bees. Many could account for getting stung, to a lack of care on their part along this line. I once employed a man who was constantly jarring the hives in putting on the covers and taking them off, and, say what I would, it did not seem to make any difference with him; consequently, I had to turn him off, much to my regret, for he was just such a man as I liked in every other respect.

While he was with me for a week, the bees became so irritable that I could not go into the yard without being saluted by angry bees—while before I could pass all over the apiary bare-headed, and not be noticed by the bees at all.—G. M. Doolittle, in *Rural Home.*

How to Move Bees.

We have recently had occasion to move our bees a distance of about a mile, and it was accomplished with but little loss. A cool day was selected, cold enough to prevent the bees flying much, and yet not so cold as to make the combs very brittle. They were previously prepared for removal by reducing the space occupied, to Winter size, and placing two half-inch square sticks across the top of the brood frames, with the burlap cover over that. We then removed the upper story of the hive and placed the cover over the brood apartments, and fastened it on with small cleats, also cleating the bottom board to the brood apartment in the same manner. A piece of wire cloth was then fastened over the entrance, when all were ready to start.

On the day selected for moving, the bees were loaded into a wagon with five or six inches of straw in the bottom of the bed, and as the roads were soft and not lumpy, by driving carefully we got through all right. It turned cooler the next day, and our bees were confined to the hives three days, and then on a warm day following, the wire cloth was carefully removed from the entrances, and a shingle placed against the hive in such a manner that the bees leaving the hive in a hurry would fly against the shingle, and thus be reminded to "look a leedle oud."—*Exchange.*

Extra Combs are handy to have in stock—at least three for each hive.

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OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

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Special Notices.

☞ Send us *one new* subscription, with $1.00, and we will present you with a nice Pocket Dictionary.

☞ The date on the wrapper-label of this paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to pay for another year.

☞ Systematic work in the Apiary will pay. Use the Apiary Register. It costs:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

☞ As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.

YOU NEED an Apiary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for $1.25; or for 200 colonies for $1.50. *Order one now.*

Supply Dealers desiring to sell our book, "Bees and Honey," should write for terms.

We Club the American Bee Journal and the Illustrated Home Journal, one year for $1.35. Both of these and Gleanings in Bee Culture, for one year for $2.15.

If You Have any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time.

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

When talking about Bees to your friend or neighbor, you will oblige us by commending the BEE JOURNAL to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the Convention Hand-Book by mail, postpaid. It sells at 50 cents.

HONEY AND BEESWAX MARKET.

CHICAGO, Apr. 30.—Fancy comb honey is selling at 16c.; choice, 14@15c. Other grades 10@13c. Extracted. scarce, good demand, at 7@7½c. Beeswax, active sale, 28c.
S. T. FISH & CO., 189 S. Water St.

NEW YORK, Apr. 30.—No demand for comb honey excepting fancy white. Quite a stock on the market of off grades and buckwheat. New Southern extracted arriving and sells at from 70@75c. per gallon for choice; 65@70c. for common. Beeswax quiet but firm at 27@29
HILDRETH BROS. & SEGELKEN,
28-30 West Broadway.

KANSAS CITY, Mo., Apr. 30.—Demand light, supply large. Prices: No. 1 white comb, 13@14c.: No, 2 white, 10@12c. Extracted, white, 6@7c.; amber, 6@6½c.; dark, 5c. Beeswax—Demand good, supply light. Price, 22@27c.
CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI. Apr. 30.—Demand is slow for comb with good supply. Price, 12@15c. Demand for extracted is fair at 5@8c.

Beeswax is in good demand, at 25@27c for good to choice yellow.
C. F. MUTH & SON,
Cor. Freeman & Central Aves.

NEW YORK, Apr. 30.—Demand for honey is very moderate, supply good, exceeding the demand. There is little demand for fancy 1-lbs. Market pretty well cleaned up of that grade, but plenty of fair. Prices: Comb, clover, 8@12c.; buckwheat, 7@9c. Extracted, clover, 6½@7c.; buckwheat, 5½@6c. Beeswax—Demand fair, supply plenty for demand, at 27@29
CHAS. ISRAEL & BROS., 110 Hudson St.

KANSAS CITY, Mo., Apr. 30—Demand poor, supply light of comb. Fancy 1-lbs., 12@13c.; dark, 8@9c. Extracted, white, 7c.; dark, 5@6 No beeswax on the market.
HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, Apr. 30.—The demand is slow, and supply fair, and will be absorbed by time new crop comes. Comb, 11@12½c. Extracted, 7@8c. Beeswax—Demand moderate, supply fair; price, 27@28c.
M. H. HUNT, Bell Branch, Mich.

CHICAGO, Apr. 30.—Demand fair and supply short on fancy stock. Comb, 14@15c. Extracted, slow sale at 6@7c. Beeswax—Demand good, supply short on prime yellow; price, 25@28c.
J. A. LAMON, 44-46 S. Water St.

MILWAUKEE, Apr. 30.—Demand very moderate, supply average of all grades but common quality. Best 1-lbs. 15@16c; common, 12@13c. Extracted, white, in barrels, 7c.; in kegs, 7½c; in pails, 7½@8c. Beeswax—demand fair, supply small. Price, 23@28c.
A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO, Apr. 30.—Demand light, supply light. Comb, 10@12c. Extracted, 5@6¼c. Beeswax — Demand fair, supply light. Price, 25@27c. A fair to good honey crop for 1892 is expected.
SCHACHT, LEMCKE & STEINER,
16 Drumm Street.

NEW YORK, Apr. 30.—Demand is light, and supply large, except buckwheat comb. We quote: Fancy white comb, 12@14c; buckwheat, 9@11c. Extracted—Clover and basswood in good demand at 6½@7c; buckwheat lnd emand at 5@6c. Beeswax in fair demand at 26@28c.
F. I. SAGE & SON, 183 Reade St.

CHICAGO, Apr. 30. — Demand is slow, supply fair, but not excessive, and market should clean up. Prices: Comb, 15c. is about the top. Extracted, 6, 7@8c.; supply small. Beeswax —Demand good, supply better than last season. Price, 27c. for yellow.
R. A. BURNETT, 161 S. Water St.

BOSTON, Apr. 30.—Demand is light, supply fair. We quote: 1-℔. fancy white comb, 13@15c; extracted, 6@7c. Beeswax—Demand fair, supply light. Price, 28c.
BLAKE & RIPLEY, 57 Chatham St.

MINNEAPOLIS. Minn., Apr. 30.—Demand is moderate, supply of dark is large, but white is not so plentiful. Prices: Dark comb, 10@13c.; white, 15@17c. Extracted, supply plenty. Beeswax—Demand good, supply small.
STEWART & ELLIOTT.

ALBANY, N. Y., Apr. 30.—Demand is very little for comb at 8@12c. Market quiet. Extracted, 6@7c. Beeswax in good demand at 28@30c. for good stock.
H. R. WRIGHT, 326-328 Broadway.

NEW YORK, Apr. 30.— Demand moderate, and supply reduced, with no more glassed 1-℔ nor paper cartons, 1-℔. We quote: Comb, 1-℔, 14@15c. Extracted—Basswood, 7¼@7½c; buckwheat, 5½@6¼; Mangrove, 68@75c per gal. Good demand for dark extracted honey. Beeswax, in fair supply, with small demand, at 26@27c.
F. G. STROHMEYER & CO., 120 Pearl St.

The Convention Hand-Book is very convenient at Bee-Conventions. It contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with Subjects for Discussion. In addition to this, there are about 50 blank pages, to make notes upon, or to write out questions, as they may come to mind. They are nicely bound in cloth, and are of the right size for the pocket. We will present a copy for one new subscription to the Bee Journal (with $1.00 to pay for the same), or 2 subscribers to the Home Journal may be sent instead of one for the Bee Journal.

Calvert's No. 1 Phenol, mentioned in Cheshire's Pamphlet on pages 16 and 17, as a cure for foul-brood, can be procured at this office at 25 cents per ounce, by express

Get a Binder, and always have your Bee Journals ready for reference. We will mail you one for 50 cents.

Busy Bees, and How to Manage Them, by W. S. Ponder. Price 10 cents. For sale at this office.

THE AMERICAN BEE JOURNAL
CIRCULATES
ALL OVER THE WORLD
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THOS. G. NEWMAN & SON,
CHICAGO, ILL.

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THOMAS G. NEWMAN, EDITOR.
GEO. W. YORK, ASSISTANT EDITOR.

Vol. XXIX. May 12, 1892. No. 20.

Editorial Buzzings.

The Glad Spring-tide is here again;
The thrushes sing all day;
We've violets in the sheltered glen,
And gorse-bloom on the brae;
Along a green and daisied world,
The lights and shadows flit;
The cherry trees with buds are pearled,
The crocus lamps are lit.

◆

The Board of Lady Managers proposes to erect near the Woman's building a children's home, or public comfort pavilion for mothers and children. The estimate for the building is $20,000, and for the maintenance $10,000, which sums it is proposed to raise by subscription. It is believed that such a place where young children can be safe and well cared for while their parents view the sights of the Exposition, will prove to be a great and appreciated convenience.

So Universal has the *grippe* held sway this Spring, that to chronicle all the cases is nearly impossible. The latest one recorded is our friend James Heddon, who has been confined to his residence by it for three weeks, and has been disabled for six weeks more. We are glad to report that he is now convalescing.

◆

Among the Many bee-keepers we met without apppointment during our late trip, was Mr. J. B. Hains, of Bedford, Ohio, whom we saw with his son, Dr. Hains, at Kent, O. It is a pleasure to meet such an enthusiastic bee-keeper as Mr. Hains anywhere in the world.

While riding on the cars, we saw many apiaries, large and small, dotting woodland and valley, awaiting the coming of the blossoms soon to beautify the face of Nature, and give the bees a chance to gather honey for feeding the coming generation; and still later to store it for their keepers, and do their share towards supplying the marts of the waiting world.

◆

The Friends of Mr. George E. Hilton, of Fremont, Mich., are trying to get him to represent them in the Legislature of that State, as we notice by the Fremont *Indicator*. Friend Hilton is a popular man, and worthy of any good thing that his countrymen can bestow upon him.

◆

Mrs. Jennie Atchley, of Floyd, Tex., we are sorry to say, has been sick with "slow fever" for 20 days, and was just getting able to be up again on April 29. We, as well as many of our readers, can sympathize most fully with our sister apiarist, as so many of us have been more or less afflicted recently.

◆

Farming has not paid as well as bee-keeping for the past few years, is a statement in the *Canadian Bee Journal.*

Dr. J. H. Kellogg, of Battle Creek, Mich., has made some very startling blunders relative to bees and honey. During the past ten years the AMERICAN BEE JOURNAL has had to correct him several times. He evidently is too busy to investigate for himself, and is thus often drawn into indorsing the very stupid misstatements of others. In *Gleanings* for the 1st of April we find the following concerning his latest blundering and narrow-minded assertions:

The following, from Dr. Kellogg, is clipped from a newspaper, and sent us by one of our correspondents:

"Honey, in its best estate, is not a pure sweet, and consequently is open to greater objections than free sugar. The bees are not very nice in their habits, and gather their stores in all sorts of places, sometimes hovering over that which is very loathsome and unclean. In gathering the nectar from flowers, the bee rubs off more or less of the pollen and carries it home with him and deposits it with the honey. If the pollen happens to be poisonous, the honey is poisoned. At Trebizond, Turkey, poisonous flowers abound so that the honey at that point is always poisonous. Further, the bee always puts in a certain quantity of poison from the poison-bag, formic acid, to preserve the honey. If the bees are very much disturbed while at their work, they inject an unusual amount of this formic acid into their product, and so the honey becomes 'rank.' A person who eats 'rank' honey will be taken sick, and likely break out with a rash similar to nettlerash, formic acid being the poison in both instances. These facts have all been determined by scientific investigations."

We have great respect for Dr. Kellogg; but, like other great men, he has made *some* bad blunders. And, by the way, "big doctors," it seems to me, are too apt to make positive assertions in regard to things a little outside of their field, that are only mere conjecture. His expression, "Bees are not very nice in their habits," may be true in a narrow sense; but the statement is mostly misleading as it stands, as any one conversant with honey-bees knows.

Again, he says, "If the pollen happens to be poisonous, the honey is poisoned." This reminds us of the fearful blunder made by the health commissioners of New York city last season in condemning grapes. They *did* see a little poison on the *stems* of the grapes, very likely; but in order to do any harm, a man would need to eat *a ton of grapes* at a meal, stems and all; and even then it is doubtful whether the quantity of posion he received would prove fatal.

The honey at Trebizond, Turkey, is "always poisonous," is it? Perhaps we can find out something more about that. If there is anybody who has ever been near that locality, I would kindly ask him to give the address of some proper person, and have the matter investigated. Such a newspaper statement would be damaging to the "real-estate prospects" of that locality. We would respectfully call the attention of the Sublime Porte of Turkey to the above slanderous statements in regard to his dominion.

Another thing. Does the honey-bee *always* put formic acid in the honey? Will Prof. Cook please tell us about these things that come within his domain?

Some writer, if I am correct, once suggested that the operation of extracting honey stirs the bees up to such an extent that they inject bee-sting poison into the honey, and this is why extracted-honey is more likely to make people sick than comb-honey. The writer was probably working for comb-honey, and felt anxious that the great public should give comb-honey the preference—*i. e.*, pay a bigger price for it.

Then, again, "The person who eats rank honey will be taken sick." This is another of the positive assertions; and yet we have readers who eat raw honey about as friend Terry and I eat strawberries, and it does not make them sick. The rest of the sentence would indicate that, whenever any of you break out with a rash, all you have to do is to think back when you last ate some honey.

Of course it is undisputed that "poisoned honey" was found in Trebizond, for history proves it. There is also some in America, which comes from the mountain laurel; but it is only the "drop" compared to the ocean!

We hope that Prof. Cook, or some other competent authority, will deal out full measure of truth in answer to the Doctor's wholesale assertions and slanders about the formic acid in honey.

That honey is one of the most potent medicines has been acknowledged for thousands of years. In fact, it is a truth "as old as the hills," and as indisputable as the universe itself. We point with pride to the vast stores of facts concerning the medical virtues of honey, furnished by Aristotle, Hippocrates, Galen, Pliny, and many other old medical authors.

Schuckard, in his work on "British Bees," says: "The earliest manuscript extant, which is the medical papyrus, now in the Royal Collection at Berlin, and of which Brugsch has given a facsimile and a translation, dates from the nineteenth or twentieth Egyptian dynasty, accordingly from the reign of Ramses II., and goes back to the fourteenth century before our era. But a portion of this papyrus indicates a much higher antiquity, extending as far back as the period of the sovereigns who built the pryamids, consequently to the very earliest period of the history of the world.

"It was one of the medical treatises contained within the temple of Ptah, at Memphis, and which the Egyptian physicians were required to use in the practice of their profession, and if they neglect such use, they became responsible for the death of such patients who succumbed under their treatment, it being attributed to their contravening the sacred prescriptions. This pharmacopœia enumerates amongst its many ingredients, honey, wine, and milk; we have thus extremely early positive evidence of the cultivation of bees. That they had been domesticated for use in those remote times is further shown by the fact mentioned by Sir Gardiner Wilkinson, of a hive being represented upon an ancient tomb at Thebes.

"It may have been in consequence of some traditional knowledge of the ancient medical practice of the Egyptians, that Mahomet, in his Koran, prescribes honey as a medicine. One of the Suras, or chapters, of that work, is entitled 'The Bee,' and in which Mahomet says: The Lord spake by inspiration unto the Bee, saying: 'Provide thee houses in the mountains and in the trees [clearly signifying the cavities in the rocks and hollows of trees, wherein the bees constructed their combs], and of those materials wherewith men build hives for thee; then eat of every kind of fruit, and walk in the beaten paths of the Lord.' There proceedeth from their bellies a liquor, wherein is a medicine for men. Verily, herein is a sign unto people who consider.

"It is remarkable that the bee is the only creature that Mahomet assumes the Almighty to have directly addressed. Al-Beidawi, the Arabian commentator upon the Koran, whose authority ranks very high, in notes upon passages of the preceding extract, says, 'The houses alluded to are the combs, whose beautiful workmanship and admirable contrivance no geometrician can excel.'

"The 'beaten paths of thy Lord,' he says, 'are the ways through which, by God's power, the bitter flowers passing the bee's stomach, become honey; or, the methods of making honey he has taught her by instinct, or else the ready way home from the distant places to which that insect flies.'

"The liquor proceeding from their bellies, Al-Beidawi says, 'is the honey, the color of which is very different, occasioned by the different plants on which the bees feed; some being white, some yellow, some red, and some black.'

"He appends a note to where Mahomet says, 'therein is a medicine for man,' which contains a curious anecdote. The note says, 'The same being not only good for food, but a useful remedy in several distempers.'

"There is a story that a man once came to Mahomet, and told him his brother was afflicted with a violent pain in his belly; upon which the prophet bade him give hive him some honey. The fellow took his advice; but soon after, coming again, told him that the medicine had done his brother no manner of service. Mahomet says: '*Go* *and give him more honey*, for God speaks truth, and thy brother's belly lies.' And the dose being repeated, the man, by God's mercy, was immediately cured."

Bees and Fruit-Growers, as we have so often said, should be the best of friends, and ought to do all in their power to preserve harmony in their midst. Their interests are so identical and mutually beneficial that nothing should be permitted to interfere with the most pleasant and cordial relations existing between those who produce honey and those who grow fruits and seeds.

Mr. Frank Benton, an attache of the Department of Agriculture at Washington, D. C., prepared an article for the last issue of *Insect Life*, which covers the ground so clearly and thoroughly that we reproduce it here for the benefit of our readers. It is as follows:

BEES OF GREAT VALUE TO FRUIT AND SEED GROWERS.

At last fruit-growers and bee-keepers are getting into right relations with each other. The numerous discussions which have taken place regarding the value of bees as fertilizers of fruit blossoms, and of those blossoms of plants grown for their seeds, and regarding the alleged damage to fruit by bees have led to close observation and careful experimentation, the results of which show that the interests of these two classes of producers conflict in but trifling respects—that, in fact, bee-keepers and fruit-growers are of great help to each other, and even indispensable if each is to obtain the best results in his work.

Bee-keepers have never complained, but that the growing of fruit in the vicinity of their apiaries was a great benefit to their interests, hence their position has been merely a defensive one, the battle waxing warmer only when poisonous substances were set out to kill off the bees, or when fruit-growers sprayed their orchards with poisonous insecticides during the time the trees were in blossom, or again when efforts were made to secure by legislation the removal of bees from a certain locality as nuisances.

Fruit-growers first relented when close observation and experiment showed that wasps bit open tender fruits, birds pecked them, they cracked under the action of sun and rains, and hail sometimes cut them, the bees only coming in to save the wasting juices of the injured fruit. The wide publicity given to the results of the experiments made under the direction of the United States entomologists, and published in the report of the Commissioner of Agriculture for 1885, have, no doubt, contributed much to secure this change among fruit-growers.

But now it would appear that the bees have not only been vindicated, but that in the future fruit-growers are likely to be generally regarded as more indebted to bee-keepers than the latter are to the fruit-growers, for the amount of honey the bees secure from fruit-blossoms comes far short of equaling in value that part of the fruit crop which many accurate observations and experiments indicate is due to the complete cross-fertilization of the blossoms by bees.

The observations and researches of Hildebrand, Muller, Delpino, Darwin, and others, as well as the excellent explanation of the subject in Cheshire's recent work, have gone far to prove how greatly blossoms depend upon the agency of bees for their fertilization, and hence for the production of seeds and fruits.

The facts they have brought forward are gradually becoming more widely known among fruit-growers and bee-keepers, and additional evidence accumulates. A case illustrating very clearly the value of bees in an orchard has recently come to the notice of the writer, and its authenticity is confirmed by correspondence with the parties named, who are gentlemen of long and extensive experience in fruit-growing, recognized in their locality as being authorities, particularly in regard to cherry-culture. The facts are these:

For several weeks the cherry crop of Vaca Valley, in Solano county, Calif., has not been good, although it was formerly quite sure. The partial or complete failures have been attributed to north winds, chilling rains, and similar climatic conditions, but in the minds of Messrs. Bassford, of Cherry Glen, these causes did not sufficiently account for all the cases of failure.

These gentlemen recollect that formerly when the cherry crops were good, wild bees were very plentiful in the valley, and hence thought perhaps the lack of fruit since most of the bees had disappeared, might be due to imperfect distribution of the pollen of the blossoms. To test the matter they placed, therefore, several colonies of bees in their orchard in 1890. The result was striking, for the Bassford orchard bore a good crop of cherries, while other growers in the valley, who had no bees, found their crops entire or partial failures. This year (1891) Messrs. Bassford had some 65 colonies of bees in their orchard, and Mr. H. A. Bassford writes to the Entomologist: "Our crop was good this season, and we attribute it to the bees." And he adds further:

> Since we have been keeping bees our cherry crop has been much larger than formerly, while those orchards nearest us, five miles from here, where no bees are kept, have produced but light crops.

The *Vacaville Enterprise* said last Spring, when referring to the result of the experiment for 1890:

> Other orchardists are watching this enterprise with great interest, and may conclude that to succeed in cherry-culture, a bee-hive and a cherry orchard must be planted side by side.

And now the result for 1891 is known, "others," so Mr. Bassford writes, "who have cherry orchards in the valley, are procuring bees to effect the fertilization of the blossoms."

Father Langstroth's brain-troubles are again ended for a time, after an attack lasting three years. It is an extreme pleasure to receive the following letter from him, which details his condition and exultant feelings:

DAYTON, O., May 6, 1892.

MR. THOMAS G. NEWMAN—

MY DEAR OLD FRIEND:—I know that you will be glad to learn that I have at last gained relief from my sad head-trouble, the last and longest attack of which has lasted nearly three years.

Instead of the desponding experience of the writer of Psalms 42nd and 43rd, who cried, "Why art thou cast down O my soul? and why art thou disquieted within me? O my God, my soul is cast down within me. Deep calleth unto deep at the noise of thy water spouts. All thy waves and thy billows have gone over me." I can say: God has sent out his light and his truth to lead me. I can again hope in God, and can with joy feel heart to praise him, who is "the health of my countenance, and my God."

My daughter could see that the dark clouds were being gradually though but slightly lifted up, but the transition from great suffering to joy and gladness, took place in a few hours.

I have been much pained to learn of your serious nervous prostration, and hope that you will soon be able to resume without any risk your valuable labors. With much love to yourself and family circle, I remain as ever,

Your affectionate friend,

L. L. LANGSTROTH.

Queries and Replies.

Keeping Bees from Watering-Troughs.

QUERY 818.—Please inform me what to do to keep our bees away from our neighbor's watering-trough? All through the Summer they annoy almost beyond endurance, and it annoys us equally as much. We have applied carbolic acid to the edges of the trough, but to no effect. We put out plenty of water at home, but the bees seem determined to visit the neighbors. When a man comes up at noon with three or four horses, it is not pleasant to have bees running up the noses of the horses, and, after awhile, some of the horses would go without their drink on account of the bees. We cannot think what to do to help matters. —Bee-Keeper's Wife.

I do not know, unless they are so confined that they cannot fly at all.—J. E. POND.

I know of no way except to put a hinge cover over the trough, which may thus be closed except when in use. This would be effective.—A. J. COOK.

Have two troughs. Keep the one empty for the horses, only when in use. Keep the other one always supplied with water.—J. M. HAMBAUGH.

Give plenty of fresh water in a wooden trough at home. How far from you is the neighbor? They may not be your bees.—MRS. L. HARRISON.

If the neighbor will empty the trough as soon as the horses are done drinking, the bees will cease to visit it. I know of no other way.—M. MAHIN.

Put a little salt in the water you furnish at home, and allow it to ooze into sawdust or decayed wood, and you will have no trouble.—G. M. DOOLITTLE.

Place the water at home in troughs, "dug-outs," or as inviting to the bees as your neighbor's, and then apply carbolic acid to the sides of the neighbor's troughs.—J. P. H. BROWN.

In early Spring get your watering places ready, and "bate" them with some sweetened water, and they will go to them in place of your neighbor's.—H. D. CUTTING.

Commence early in the Spring to give them warm water in some sunny place protected from the wind, and see to it that there is *always* water there; as the season advances, it need not be warmed. If necessary, cover the horse trough with a hinged lid.—MRS. J. N. HEATER.

Keep salted water at home *early* and always. Try carbolic acid in larger quantity. Keep the neighbor's trough covered, if possible, when not in use.—C. C. MILLER.

Keep the troughs closed with covers so close that bees cannot get in. If kept closed except when horses are watering, the bees will cease to trouble.—R. L. TAYLOR.

If possible, cover up the trough when not in use. Also early in the season educate your bees to take water from a supply furnished them near home.—P. H. ELWOOD.

Make a good watering place near the apiary early in Spring, before the bees get in the habit of going to the water-trough. If a handful of salt is scattered over the wet place for the bees, it is a great attraction. Rub the horse-trough with kerosene.—C. H. DIBBERN.

This is a vexed question. We think the bees would visit the neighbor's trough much less if it was kept in the shade during Summer, say under a shed. They contract the habit in early Spring, and go in preference to sunny places.—DADANT & SON.

Put out water for your bees so early in the season that your bees will form the habit of visiting it rather than go to your neighbor's water. If you once let your bees establish the habit of visiting the wrong place for water, you cannot turn them by any means I know of.—G. W. DEMAREE.

Buy the old water-soaked trough and remove it (bees and all) to your own land. Get your neighbor to go without any trough a few days. Then set up for him a metal trough. If this does not cure your renegade bees, they have "got it so bad" that they cannot be healed by any remedy I know of.—JAMES HEDDON.

Try painting the sides of the troughs with kerosene, being careful not to put on so much that it will float on the water so as to make it disagreeable. Crude petroleum would probably be better. Apply when the wood is dry, and let it soak in, putting on all the wood will absorb.—JAMES A. GREEN.

It is not easy to keep bees away from a watering-place after they have once got started. Where such trouble occurs I would advise to fix up watering-troughs in the apiary. Fill a tight box-trough with corn cobs, fill with water, put in a little salt, and start the bees upon it early with a piece of comb-honey.—G. L. TINKER.

The querist will please ask something easy. If she will tell me how to keep my bees away from my neighbor's peach orchard when in bloom, I will tell her how to keep her bees from her neighbor's watering-trough. I would try and not let them get into the habit, by keeping plenty of good water near by.—MRS. JENNIE ATCHLEY.

I have been troubled in the same way. We happened to buy the land, then we built a shed over the trough for the cows to run under, open only on one side (south side). The trough is in the north side of the shed, all sides except the south boarded up tight, then it was cool and shady where the water-trough was. No bees have been there since.—E. FRANCE.

After bees get accustomed to going to a certain place for water it is difficult to stop them. If a place were provided for them only a few rods from the apiary *early in the Spring*, and kept in just the right condition, it might help. I notice that if a trough leaks enough to keep the ground around it muddy, the bees are usually found on the ground, and not in the trough.—EUGENE SECOR.

I "kinder thought" a lady was asking this question before I had read it all. The "Golden Rule" shines out. There is probably some quality in the water at the "neighbor's watering-trough" that the bees like, that is not in the water you put out for them. Perhaps a little salt in the water used at home would remedy the evil. Bees seem to prefer water that is a little old. Trading troughs with the neighbor might answer.—A. B. MASON.

When bees have formed the habit of going to any place for water, it is a difficult matter to prevent their continuing to go to the same place, and hence they should be provided with water at home early in the Spring, and be "enticed" there for their regular supply. A little salt in the water at the home trough will make it inviting to the bees, and at the same time to give the sides of your neighbor's trough a coat of kerosene oil, would help to cultivate a liking for the home trough, which should be placed in a sunny spot.—THE EDITOR.

Topics of Interest.

Some Remarks on Closed-End Frames.

JAMES HEDDON.

I have just read Dr. Tinker's essay on the above subject, on page 577. When "great lights" (?) differ so widely, it will no doubt be well to discuss the subject *pro* and *con*.

What the Doctor says about Father Langstroth's invention is true in the main; that invention marks the line between the go-lucky method of honey production and the scientific way. Easy movable frames were the educators of bee owners, but after the bee-keeper has his education, then it becomes a question whether or not he can produce the most honey with less expense with these hanging frames or with the fixed frames, especially when the latter are arranged so as to be as easily moved as the former.

Again, before the advent of comb-foundation, the lateral movement was almost a necessity, especially if the frames were deep; now it is of no especial account, particularly with the shallow frames. Bee-keepers are beginning to see that it is to their interest to adopt fixed frames.

To make money out of bee-keeping at the present prices, it becomes necessary to keep larger apiaries and economize in labor; this demands the handling of hives more and frames less, which is the old topic I was the first to write about, nearly ten years ago. So far the Doctor and I do not differ very much, but when he says that fixed frames had better be arranged some other way than to have closed end-bars, there we differ widely. I maintain that end-bars should be tight fitting their entire length, and that they should fit each other tightly, and the case loosely, so as to admit of easy manipulation in and out, while they fit closely enough to entirely prevent the bees from going between them and the case. Of course it will be seen at once that if the frames do not fit each other tightly, their entire length, they must have bee-spaces between their ends and the case.

I object to the Hoffman. I have always considered it the worst frame yet devised, and I give for my reasons the fact that the uprights touch each other only apart of their length, which gives the frames their fixedness, while the openings between them, a portion of their length and between them and the case, do not admit of rapid, easy manipulation, because they invite propolis and burr-combs, and assist in pinching bees when withdrawing or re-inserting them in the case.

I leave wholly out of the question the objections many writers have made to the space they take up, circulation of air, etc., as I consider them minor; but another important objection is the lurking place they afford for the queen when we are searching for her. I do not wonder that the Doctor entertains doubts regarding fixed-frames taking the place of hanging Langstroth frames. I have more doubts than he, unless those fixed frames have uprights tightly fitting each other their entire length, and fitting the case as above described.

The Doctor says that nothing can be better than the Langstroth arrangement, because it has been used for so many, many years; well, if he is right, it is no use for us to attempt any improvements. If this is true, the same is true in horticulture. As with the Langstroth frame, the Wilson's Albany Seedling Strawberry is by its present popular use pronounced the best extant, and it is about the same age as the Langstroth frame. But the horticulturist, as usual, will endeavor to produce a strawberry better, as an all-around market-berry, than the Wilson.

Think of the many years the Hoffman frame was before the public without favor. The Doctor mentions our friends Root, of Medina, and just here I wish to say, that in my opinion their advocacy of the Hoffman frame, and not general experience with that frame is what is giving it its temporary reputation. I have always considered it the least adapted to the instinct of the honey-bee, and the convenience of the bee-keeper.

Am I not correct in saying that there was very little demand for any kind of fixed frames when I begun introducing my new hive, six years ago? Was there then a supply dealer in America who was selling hives containing fixed frames of any kind? I do not know of one; since that time they have become somewhat popular. I presume that friend Root does not desire to infringe my invention as regards the frame or the brood-sections in two sections, and in trying to meet the demand for fixed frames in some shape, he has adopted the old Hoffman, and if he is not already convinced, I shall labor hard before the end of 1892 to convince friend Root that the Hoffman is an unscientific frame, just as bee-keepers at large pronounced it from the time of its inception until quite recently.

Bee-keepers are not so dull that it takes so many years to discover the merits of a comb-frame; at least not the large honey-producers. It must be remembered that friend Root can sell anything he advertises in his circulars with a circulation of many thousands.

I shall be very glad to have the Doctor, or any other bee-keeper, tell us why the partially open-end frames are preferable. I have tried them, and cannot find their alleged merits. I am still making honey-producing pay, and pay well; but to do it I am compelled to do only necessary work, and do that rapidly and well. Fixed frames, arranged as is above described, are an absolute necessity to that end.

Dowagiac, Mich.

Basswood Trees—Italian Bees.

J. M. PRATT.

In reply to Mr. J. C. Lillibridge, on page 544, I would say that in March, 1884, I asked about planting trees. I immediately set out a lot of them. The following Summer was very dry, yet three-fourths of what I set out lived. They are now from 20 to 25 feet high. I have just measured one, and it was 20 inches in circumference, and 10 feet through its bushy top.

They were 5 or 6 years old when set out, and have bloomed every year from the second year after setting. They grow while I sleep, and I feel that I am already paid for my time and labor.

I believe the cause of so much dissatisfaction with Italian bees is that bee-keepers buy queens of soome good breeder, and introduce them to colonies of black bees, and the queens are forced to lay eggs in cells built by the black bees, which are too small for pure Italians. Of course, the bees will then be no larger or better than the common blacks. Remember that bees are fully matured in the cell, that they do not grow after leaving the cell. Nor would I expect to rear fine, large chickens from small hen's eggs, even though they grow after leaving the shell. The large chickens hatched from the large eggs, even in the same brood, will always keep the lead in size. Also too close spacing of combs will produce dwarfed and worthless bees.

It is best to buy a full colony of Italian bees, on their own built combs, and keep this colony building combs as fast as possible for the queens that are bought; also give them all the comb-foundation they will work, which is large enough for them, and see if you will not be better satisfied with Italian bees. I have had them side by side in the same yard, with the same attention, and my neighbors have the blacks. I have watched them closely for ten years.

When we have cold weather during fruit-bloom, and no white clover, the Italians will build up early, and are ready for all the honey that may come from other sources—red clover, iron-weed, the big blue thistle, and golden-rod; while I have not yet seen a single black bee at work on any of them.

I was a little amused, not long ago, at one man writing in favor of black bees, and in the same article mentioned how bad the moth-worms were. I knew how bad they were when I kept the blacks, cutting through the honey and causing it to drip, and then robbing would begin in earnest. I once removed three combs of moth and web from a queenless colony, to one of my other colonies, and placed them in the second story, at the same time giving the queenless colony three frames of brood and eggs from the same.

My wife said, "Oh, you will ruin that colony of bees with all those worms and web."

I told her that we would see to-morrow. She did not let me forget it, either. I was busy at the time, so I told her to go and look in front of the hive. She went, and said, "There are web and worms outside in front of the hive."

Then at my leisure I opened the hive and found the three combs all clean, and honey being stored; the damaged places in the combs were being repaired. I am often asked by my neighbors how to keep the moth out. I tell them to do so by first keeping the black bees out.

As to the stinging qualities of the two races of bees, the Italians will hurt worse when they sting than the others; they seem to have the power to strike like a hornet, yet we are seldom stung, with the path to the garden right through the bee-yard. I do my plowing in there just in front of the bees.

I use the Langstroth frame without the flat wooden bottom, using a No. 9 wire instead. I have used this frame for eight years, and want no other. The combs are built and joined to the wire below, making them stronger and easier to handle; easier to lift out a comb, or put it back again, to find a queen, or to brush off the bees. They extract with less breakage of combs. There is nothing in the way of the bees cleaning out the bottom of the hives. The combs are never joined or glued to the bottom of the hive, as is the case with wooden bottoms. When the hives shrink so as to let the frame near the bottom of the hive, they will sometimes join the combs to the top-bars in the lower story, from the second or third story. They give me less trouble in every way than the wooden bottom.

Todd's Point, Ky.

Progress in Lower Animals.

REV. E. T. ABBOTT.

I have read Prof. E. P. Evans' article on "Progress in Lower Animals," in the December number of the *Popular Science Monthly*, and it seems to me that some of the statements found therein call for the attention of a practical apiarist. If all of them have no more foundation in fact than have those relating to bees, they furnish a very flimsy support upon which to found any kind of an argument.

I am well aware that there is a good deal of nonsense written in the name of science, but I do not remember having seen so many misrepresentations of facts, in the same length of space, in any article I ever read.

The Professor says: "Bee-hives which suffer from over-production rear a queen and send forth with her a swarm of emigrants to colonize, and the relations of the mother-hive to her colonies are known (by whom?) to be much closer and more cordial than those which she sustains to apian communities with which she has no genetic connection. Here the ties of kinship are as strongly and clearly recognized as they are between consanguineous tribes of men."

It is true that bees rear queens and swarm, but they do not rear a queen to send forth with a "swarm of emigrants," for the young queen is not out of her cell until the old queen, her mother, is out of the hive and gone with the new colony.

The "ties of kinship" are such that should the young queen issue from her cell before the old one leaves the hive, she would usually receive a fatal sting from her mother, notwithstanding her "genetic connection"—whatever that may mean. And the first young queen that gains her liberty is apt to treat her younger sisters in the same way, even before they have issued from their cells.

That the swarm, after it has become settled in its new home, recognizes in any way the relationship it bears to the old colony, is utterly absurd, and, as every practical apiarist knows, has no foundation in fact. The "ties of kinship" are not as "clearly recognized as they are between consanguineous tribes of men." Nay, the very opposite is true. They are not recognized at all after the swarm has become distinct and separate from the colony remaining in the hive, which is composed of the young bees with the young queen.

We are again told: "Bees readily substitute oat meal for pollen, if they can get it." Bees can be taught to take *rye* meal as a substitute for pollen when they cannot get pollen, but Prof. Evans, nor any one else, never saw a colony of bees that would take *oat-meal* in preference to pollen. In fact, they will not take *rye* meal at all, if they can get pollen.

However, the above quotations are not so bad as they might be, for they are harmless; that is, it will do no more injury for the people to receive them as true than it would for them to receive any other innocent absurdity in the name of science. Had it not been for the statement which follows, I should not have felt called upon to point out these mistakes of the Professor. But in further support of his argument, he tells his readers that "Apiarists now provide their hives with artificial combs for the storage of honey, and the bees seem glad to be relieved from making cells, as their predecessors had done."

Apiarists do not "provide their hives with artificial combs," but they do sometimes fill the frames of their hives with comb foundation; but this is the *real stuff*—beeswax—in thin sheets with an imprint like the bottom of the cells. This is not "artificial comb," and the bees are not "relieved from making cells." They have the cells to build, the same as they do when they secrete the wax in their own bodies out of which the combs are formed. The modern apiarist furnishes the wax and saves the time and labor of the bees that would be required to secrete it, but nothing but wax will do, and some colony of bees had to secrete that wax. It cannot be made by any "artificial" process.

I hardly think there is any evidence that the bees are "glad" to get this wax. We only know that they will use it.

Some years ago Prof. H. W. Wiley wrote what he afterward called a "Scientific Pleasantry," for the *Popular Science Monthly*, if I am correct, in which he described how "artificial comb" was made, and filled with imitation honey, and declared that an expert could not distinguish it from the genuine stuff. He thus gave currency to what has become known among apiarists as the "Wiley lie," of which Prof. Evans' statement seems to be an echo.

You have no idea, Mr. Editor, how much injury this little "pleasantry" has done the bee-keepers of this land. For, notwithstanding the fact that Prof. Wiley has explained, over his own signature, that this was only a joke, and Mr. A. I. Root, of Medina, Ohio, has offered $1,000 for a single pound of the comb, which has not been forthcoming, yet the papers and the people go on repeating this slander on an honest and reputable industry.

I have no idea that Prof. Evans thought that he was doing any industry an injury when he wrote the article referred to, but it does seem that it is high time that people who write in the name of science about bees, should inform themselves as to the facts which may be obtained from any practical and intelligent apiarist, one or more of whom may be found in almost every community.—*Popular Science Monthly, for April.*

St. Joseph, Mo.

The Cause of Foul-Brood.

J. F. LATHAM.

After having read and weighed the various ideas embodied in the essays in which the origin, treatment and cure of foul-brood have been discussed, I am somewhat unreconciled to the acceptance of the prime cause of that malady as argued by many of the learned authors who have contributed their theory and experience to a solution of the problem.

So far as visual demonstration, illustrative of the general phases of growth, culmination and disintegration of organic results, representing the disease of foul-brood, are concerned, there is a very general agreement. But even the teachings of Cheshire and Cowan fail to delineate the origin of the scourge they so graphically describe and illustrate. Cheshire tells us that the bacilli from which the destructive tendencies of foul-brood develop, are found active in the tissues of all stages of bee-life, and in the latent sperm-cells of the drone, and in the unlaid egg of the queen.

When bacilli are found in the tissues (muscular or otherwise) of the full-grown bee, the aspect of their presence would, it seems, be evidence sufficiently conclusive to warrant results emanating from causes accompanying physical decline—degeneration of organic stamina; but when found only in the spermatozoon of a vigorous drone, the fact of the location of the seeds of abnormality very naturally prompts a query concerning their origin.

If the bacilli were taken into the system by the processes of digestion and assimilation, it seems that they would find a lodgment in the muscular tissues of the bee when not expected in the excreta, instead of in isolated functional members only. The same assumption would apply very harmoniously to the presence of bacilli in the unlaid egg of a fecundated queen-bee in the performance of her normal functions.

But if bacilli were found in the *drone* eggs of an unfecundated queen, the origin of their presence there would be more mysterious than when found in the eggs of a "fertilized" queen, aside from the question of functional assimilation through the circulating medium.

Now, if the bacilli, which are purported to develop physical decay—foul-brood—do pass into the system from the food by assimilation, and remain dormant until they are stimulated to activity by conditions congenial to their development as parasites, it is quite certain that they must occupy a place in the development of all animate objects, and only wait a suspension of the impetus displayed in vigorous growth to assert their activity, and evolve a course of development through the established grades of existence consonant to their rank in the scale of life—animal and vegetable.

Scientists teach us that "foul-brood" is the result of fungoid growth. What is fungoid growth? Is it not, in a primitive sense, a development of the latent principle embodied in forces that stimulate to motion—activity—are ever drawing into vortices the elements in their surroundings, and by a continuous rejection of the (to them) useless and exhausted portions, generate results peculiar to their line of progression?" In a modified degree there is a semblance in the modes of propagation in whatever situation it may be found. The processes by motion, absorption and repulsion are very uniform in their collective influences.

The declaration that there can be no plant without its seed is scarcely comprehensive enough, in a radical sense, to involve the medial of nature's secrets which are hidden from the eye alone, or when aided by microscopic power.

At this point there seems to be a disconnection of the knowable and undemonstrable in the teachings of those who have attempted to describe to us novices what foul-brood really is. Some writers teach that the spores of foul-brood feed on the *healthy* fluids of the larval bee. But can the spores of disease exist in the *healthy* fluids of the larva except in a state of dormancy? It seems that they cannot; but to the contrary, it seems very certain that an abnormal condition of the fluids is the true feeding-ground of the parasitic spores.

Again, it does not appear that the presence of spores in a healthy organism will generate the disease of foul-brood by contamination due to their presence alone, as may be led to the belief by reading the statements of some writers. Would it not be more reasonable to hold that a contamination of the soil in which the seeds are planted first stimulate their germination? Analogy very strongly favors that side of the question. To "sum up," the position appears reasonably tenable when supported by the assertion that the soil must be first in a suitable condition; and the surroundings congenial, before seeds, from which the spores of foul-brood are generated, will produce the plant or fungus representing the disease.

West Cumberland, Me.

Bees Working in the Open Air.

JOHN D. A. FISHER.

In regard to bees building comb and working out in the open air, I would say that in our part of the county bees settling and building comb out in the open air is of frequent occurrence. I have said before that I believed the bees acted thus because they had failed to find a home, being tired and discouraged, and as a last resort they built combs on a limb, or anything else on which they may have chanced to have clustered.

Some 22 or 23 years ago I was walking through a piece of new ground, which contained brush-heaps. In passing one of the brush-heaps my foot caught on an end of a large brush that jarred the brush-heap. I was surprised by the sudden sound or roaring of bees. On looking, I at once saw that there was a swarm of bees in the brush-heap, and that they had comb.

I at once made arrangements to hive the bees. I found that they had four or five nice pieces of comb, with brood and honey.

About two years ago, Mr. W. Safrit found a large swarm of bees on some small bushes on the bank of a small stream. They had built nice combs, and were to all appearances enjoying their home in the open air.

Last year bees began watering at the ford on the public road across a creek here. Several parties had gone to the place to try to see where the bees were located. It was discovered that the bees went straight up. At last the swarm was seen away up on a large limb of a tall Spanish oak tree, about 60 feet from the ground. The limb hung directly over the road. This was a very large swarm of bees; we could see they had built four combs about two or more feet long, up and down the limb. Just how deep they were we could not tell.

How to get the bees down was a puzzle. At last Mr. Thomas Byrd said he would go up and saw off the limb. This he did by cutting slats about 2 feet long, and nailing them to the tree with large nails, commencing at the ground, and nailing and climbing as he went up, until he reached the limb the bees were on. He then sawed the limb off, and down came limb and bees; but, alas, for the poor little workers! Their beautiful new home, with themselves, was smashed up.

Yes, bees will build comb in the open air when they cannot find a home elsewhere.

Woodside, N. C.

Conductors vs. Absorbents in Wintering.

C. W. DAYTON.

A great deal has been said the past few months about using the cushions of porous material as absorbents, to *absorb* the moisture that is produced by the clusters of bees.

If the moisture is to be absorbed and retained by the cushion until the Winter is over, then the questions come up as to how large the cushions will need to be, and how much moisture there will be for the cushions to absorb.

In some cases where the cushions were arrranged to absorb, and where they were found to have absorbed moisture until they had become wet, there is complaint that the cushion was at fault on that account. It is not reasonable to suppose that a cushion shall absorb moisture all Winter, and still come out dry in the Spring.

I remember plainly when I used to put absorbents over the cluster of bees to take up and retain the moisture, but how or when I became changed over in favor of conductors, I do not know, unless it is from the following experience which happened in 1884.

Up to that time I had wintered all the bees in the cellar, but at that time there were 5 or 6 colonies more than could be conveniently put into the cellar, and I thought it would be a good chance to try out-door wintering. Dry goods boxes were used, which were about 8 inches each way larger than the hives, and after providing a passage for the bees from the hive to the outside, it was packed around with forest leaves.

The boxes were a foot or more deeper than the hives were high, so that there was 8 inches of leaves placed over the bees, and still left a vacant space below the cover. Before the leaves were spread over the brood-frames, everything was taken off, and a piece of new muslin laid on top of the frames. The leaves over the bees were not pressed down, but were just thrown in loosely.

The cover consisted of two or three wide boards laid across the the top of the boxes with two or three stones to hold them in place. I really like to see a nicely-painted, close-jointed hive built so true and square, but they cannot compare to these dry-goods boxes as confidence receptacles.

I have several kinds of hives whose construction is perfect, and where material alone in some of them cost from $4 to $5 each, with roofs of tin, shingles and sheet iron, but when I wish to examine a clean, dry and rousing colony, my confidence points toward a dry-goods box, and it has never yet been misplaced.

To return to the subject in question: After preparing the colonies for Winter in the dry-goods boxes, as usual, and the leaves had been loosely thrown in, I thought, as I started to go away, "Now, as those leaves are so loose, the heat will pass quickly through them, and the bees will become cold and uneasy;" so I laid upon the leaves, under the cover, a board about 20 inches square, and left them so about a month.

On examination, under this board, the *leaves were quite wet* for about 2 inches downward toward the bees. Two weeks more, and the leaves were found to be soaked for about 4 inches in depth. When the board was taken away, the leaves became dry again, as were the leaves over other colonies.

From this time I began to arrange matters so that all moisture that came into the packing above the bees would move on, and leave the packing dry. This was exactly what had been done before, but I had not discovered that laying a board on the leaves would cause the moisture to accumulate. Further experiment has proved that one inch of porous packing, and an absolutely tight cover is dangerous, and it matters but little how much empty space there may be inside the cover; the moisture will accumulate in the cushion and destroy the bees.

With an open cover, and too much packing, the effect is the same.

The point to be aimed at is to put on enough packing, and to have the packing porous enough, that all the drafts that arise from the bees will proceed directly upward, and not any of it be forced backward, downward, or toward any corners of the hive.

It might be supposed that so rapid an escape of warmth would be detrimental, but it is not so; the bees only cluster closer together as the cold is increased. They can endure this close clustering for a month or so very well, it seems.

In very cold Winters I find 8 inches of loose forest leaves about right on the 42° parallel. With this same amount of packing, and the other preparation the same, when it is a warm Winter the 8 inches is too much, and it turns the currents downward amongst the combs, and towards the corners of the brood-chamber, and around the edges of the packing, and the hive becomes damp and moldy, and honey sours. When the Winter is a warm one, 5 or 6 inches would be nearer right.

I always pack my bees for a medium Winter, or one that is colder than a medium. Then if the Winter proves to be a warm one, some of the packing can be removed, and if there is more cold weather, boards or sticks can be laid on the packing to compress the leaves, or when there is enough snow, I cover up the hives entirely with it. If continued warm weather sets in, the snow and sticks should be taken away. By varying these several conditions rightly, the colonies are sure to come out bright, shining and sweet.

For a time it was aimed to arrange the packing over the bees so as to keep them warm, and the difficulty was to know how the bees felt, which was impossible to tell. On the other hand, it is easy to tell when the bees are dry and sweet, from an examination of the packing over the cluster. By quietly pulling away the warm packing down to the quilt, and lifting the quilt gently, we can look at the bees for half a minute before they seem to know they have a caller. All the indication there is that they know of our presence is, that they will suddenly raise their bodies, a few wings will tremble a little, and they settle down as motionless as before, and not a bee changes its position.

This quietness might be supposed to be caused by the bees being chilled by the loss of warmth through the porous packing, indeed I labored under the very delusion for several Winters, when I observed that these same colonies which were so still when the temperature was 30° below zero, were just as motionless when it was 40° above zero, and the snow thawing away. But there was a great difference in the size of the cluster at the different temperatures, showing that they regulate the warmth by compact and loose clustering.

As before stated, the packing directly above the bees should be dry and warm. This statement is misleading. Directly above the cluster it is always the driest part of the packing. Of course it should be dry and warm directly above the cluster, but we must go further and see that it is dry at the edges of the packing where the upper edge of the hive, or where the division-board, meets the packing overhead.

It is a poor conclusion that we arrive at when we poke a hand down into the packing directly above the cluster, and say the condition of the hive or colony is dry.

At and behind the division-board, 6 inches from the cluster, it may be damp, and water standing in drops, or frost, if it is cold enough to freeze. If this moisture extends into the brood-chamber one inch at the top of the hive, that is, the width of one comb. Three inches lower down inside the hive, and the moisture has possession of the second comb. Three inches further down, and it extends to the third, and so on to the fourth, until the dry space in the hive which the bees occupy, may be compared to an inverted cone. There is seldom more moisture than of mold, as the combs plainly show in the Spring, where the outside comb is very moldy, the next one half-covered with mold, and the next less still, and so on.

With plenty of upward ventilation the combs stay dry.

About Feb. 1, we had just had about three weeks of quite cold weather, after which it has turned warmer, so that the bees could fly if they wished to. But suppose the weather had not been quite warm enough for a flight, and then started in on a month or two more of cold weather, just at the time the honey that was dry was consumed, and the cluster had been obliged to move, and everything was covered with sweat or frost. When the combs are covered with moisture in a warm spell, even in Winter, the honey sours, and the mold grows in a bee-hive just as much as in Summer.

The cold may crack the combs clear through, and the moisture bursts the honey-cells open so that the combs are a dauby, sticky, fermenting mass, and every breath of warmth the bees produce that cannot escape from the brood-nest turns into a befouling agent.

I have observed in hives where there were 6 Langstroth combs, and the bees were clustered on one side on four combs, that the warmth passed upward on the side of the cluster nearest the vacant combs, and flowed over the first top-bar into the next empty bee-space. At the point where the warm current met the colder air that was behind the comb, was where moisture continued to condense and run down on the outer side of the unoccupied comb. This was an exceptional instance. At other times the moisture condensed as the warmth circulated around the sides of the unoccupied combs, very slowly in progress, but with long spells of weather of nearly the same kind of weather the hive and combs became covered with large drops. A decided change in the weather made the condition either better or worse.

Variable Winters need variable packing.

It is as reasonable to vary the preparation for the ventilation of the bee-hives out-of-doors for the different Winters, as to vary the fuel burned in our stoves, the necessary banking around our bee-cellars, or the clothing on our beds. One Winter in my remembrance (1886-87), there were in the month of January 21 days in succession when the temperature did not come up to zero, and for 7 weeks it did not thaw on the south side of buildings. Three or four of the days the temperature was 40° below zero.

January of this year (1892) it was below zero only four times, and we had sleighing twice, and both times it thawed away. The instincts of the bees to cluster closer may keep them warm, but they are just as liable to be destroyed by conditions produced by unsuited packing.

Clinton, Wis.

Odd Sized vs. Regular Sections, Etc.

J. H. ANDRE.

The difference in the cost of an odd-sized section over the regular size is not so much as people generally suppose. Orders for regular sizes are sometimes filled with old sections that have been on hand from one to two years. There is more or less loss in breakage in putting together old sections, even with great care. A special order for an odd size always insures freshly-made sections with little loss from breakage, which more than over-balances the increase of cost.

WATER IN THE APIARY.

It makes a great difference whether bees have to go half a mile for water, or it is furnished them in the apiary. A large, deep, earthen dish with a cloth spread over it is the most convenient of anything I ever used. The cloth should be weighted to the bottom of the dish in the center. There will be a steady drip from the edges of the cloth hanging outside the dish, which gives the bees a chance to get water without danger of drowning.

BEST LOCATION FOR BEES.

The best locality for bee-keeping is a played-out lumber country where a part of the land is unimproved farms, and the rest slashings from which the timber has been removed. The latter burns over more or less, and more honey is obtained from one acre on an average than from five acres of improved land.

A large area of well-improved lands is a poor locality for bee-keeping. Quite frequently the dependence in such places is on clover, basswood, or one kind of flowers. If these are a failure, and one has to feed for Winter stores, it takes the profits of several seasons.

HIVE WITH SIDE FRAMES.

Among the many ideas that have come to mind, I have thought of making a hive which will have just space enough on each side for one brood-frame, the body of the hive being square, with a box in the center. Colonies for wintering will use the same size frame. These hives will be used on the tiering-up plan, with queen-excluders. The frames being at the outside, will have a tendency to keep the bees more evenly at work in the surplus, especially the last case on the hive, than they generally do with a small brood-chamber in the center of the hive.

In the Fall the bees can be united with another colony, and the frames used in the place of old ones in the regular colonies, or used in the hive the next season.

When making bee-hives cut the lumber for the hive, and cap the same length you wish the size inside. Use a strip of one-fourth round moulding in the corners to put them together. This makes a neat-looking hive, and the moulding also prevents the sides from splitting. If put together with a mitre joint, there is nothing to prevent the lumber from checking. Where two pieces check at the corners exactly opposite, the hive is spoiled.

CHESTNUT SURPLUS-CASES.

Chestnut makes the best surplus-cases (if they are not exposed to the weather) of any timber I ever used. They are cleaned of wax and propolis much easier than other kinds of wood, and get smoother by use.

Lockwood, N. Y.

The Singing of Birds and Bees.

DR. J. W. VANCE.

Into the quiet solitariness of the sanctum of the bee-editor comes the sounds of the birds as they warble their happy songs of rejoicing over the bright prospects of another Summer. But the air is still too cold for the bees to venture out far from their hives. They scurry about the entrances, and hum a merry note, cheering one another, yet not daring to fly far from home. However, it will not be long before the maple and willow will be luring the bees from their combs to sip the fresh nectar that shall flow from their tiny cups. Already the queens are laying, and in many hives great patches of brood are incubating, and ere long the frowzy young bees will be coming forth to reinforce the decimated ranks of their ancestors, and to gladden the heart of the anxious bee-master who has watched hopefully over his pets.—*Wisconsin Farmer.*

CONVENTION DIRECTORY.

Time and place of meeting.

1892.
May 17.—Northern Illinois, at Harlem, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

May 25.—Capital, at Springfield, Ills.
C. E. Yocom, Sec., Sherman, Ills.

May 28.—Haldimand, at Nelles' Corners, Ont.
E. C. Campbell, Sec. Cayuga. Ont.

Oct. 7.—Utah, at Salt Lake City, Utah.
John C. Swaner, Sec., Salt Lake City, Utah.

1893.
Jan. 13, 14.—S.W.Wisconsin, at Boscobel.Wis.
Benj. E. Rice, Sec.. Boscobel, Wis.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—The Editor.

North American Bee-Keepers' Association

President—Eugene Secor..Forest City, Iowa.
Secretary—W. Z. Hutchinson....Flint, Mich.

National Bee-Keepers' Union.

President—James Heddon ..Dowagiac, Mich.
Sec'y and Manager—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Fine Prospects for Honey.

My bees are in good condition for Spring and Summer work. The prospect is fine for a good year for honey.

G. B. Cartmell.
Jackson, Tenn., May 5, 1892.

How the Bees Have Wintered.

My 40 colonies of bees are reduced to about 35, owing to my misfortune. On Jan. 2 I slipped on the ice and broke my hip-bone, and have not been able to be out-of-doors since. The bees need attention more than I can give them. Twenty colonies that winter and summer in a bee-house, are all alive; they fly out when warm enough. I have kept bees about 35 years. My only dependence for surplus is white clover. Last season I had over 1,200 pounds, and sold 6 pounds for $1.00. My loss in wintering is more than I first thought, being 20 to 25 per cent.

Robert Meeks.
Muncie, Ind., April 21, 1892.

Italians and Black Bees.

I have kept bees for the last five years, and have had Italians and blacks side by side, and gave both a fair test. I am decidely in favor of the Italians. It is probably true that Italians are a little slow in entering the sections, but when they do start work they leave the blacks far behind. I am afraid those that claim that the blacks are superior, have not given the Italians a fair chance. How is it that all extensive bee-keepers, as a rule, keep and prefer Italians, especially those that work for the money there is in it? They do not keep them for their beauty alone, but because they gather more honey, and consequently give more money to the apiarist, and money is what we are after. They are easier to handle, and protect themselves better than any others. The person who produces a better race of bees than the Italians, has to get up and hustle.

W. A. Saul.
Denison, Iowa.

Backward Season.

Bees have wintered well here, but the season is backward, and colonies are not as strong as they usually are at this season of the year.

Walter S. Pouder.
Indianapolis, Ind., April 29, 1892.

Wintering and Springing Bees.

When overhauling my bees on March 10 and 11, I found them in the best of condition. Of 40 colonies, 38 were all right in every respect, but 2 of them, although strong in bees, were queenless. One queen of 1886 had died of old age, and another one, hatched the latter part of September, 1891, had disappeared. I provided all with additional stores where needed, and replaced the top packing. On April 22 I looked them over once more, and gave them from 1 to 3 frames more, partly filled with honey. I registered them: 15 extra colonies; 6 strong; 7 middling; and 3 weak in bees, but otherwise in healthy condition.

April has been exceedingly hard on bees. It has been wet and cold three days out of four, and the first three days in May are the same, so that many bees perish when they leave the hive for water, rye flour, or recently, pollen. If this weather continues, my bees will have up-hill work, but I am in hopes that soon a change for the better will come. So far, maple, elm, buffalo-berry and willow-bloom have not benefited the bees one particle. On April 30 the thermometer ranged 90° in the shade, and bees were roaring in box-elder trees, but since then we have again northern winds prevailing, and a drizzling rain. The result is hundreds, yes thousands, of bees leaving their hives never to return. The prospects for bee-pasturage is good. Sweet clover, alfalfa and white clover are luxuriant, and fruit-bloom is about ready to open; but what does all this amount too, when bees cannot work on them, when they bloom?

Wm. Stolley.
Grand Island, Nebr., May 3, 1892.

Taste of Honey, Etc.

In answer to a query asked by a subscriber of the American Bee Journal, I will say that there is a wide difference in the taste of honey in the comb, and in extracted-honey gathered from the same flowers. In comb-honey we get the beeswax flavor with the honey flavor, and with the extracted-honey we only have the honey flavor. There is a wide difference in the taste. The weather is cool and cloudy, with some very heavy rains, which is a drawback to our queens in mating.

Mrs. Jennie Atchley.
Floyd, Tex., April 29, 1892.

The Season in Northwestern Missouri.

I began the season of 1991 with 7 colonies, increased to 17, and obtained 150 pounds of comb-honey, and 100 pounds of extracted, mostly being gathered from honey-dew, as white clover failed from some unknown cause to secrete any nectar. Through August and September the bees stored a little honey from the Fall bloom—Spanish-needle and wild asters. The Spring and Summer of 1891 was noted here for its heavy, long-continued rain storms, and the Fall months by a severe drouth (hot winds from the southwest, which is almost wholly unknown to the oldest settlers) played sad havoc with the Fall flowers, burning them to a crisp in a single day, and the apiarists who failed to supply the needed stores for Winter, are reaping their reward, and there are not a few, to my own personal knowledge. I think they have paid dearly for the lesson learned. My bees are packed on the summer stands. When I packed them away last Fall I doubled them up to 12 colonies, and all have come through all right so far, except one very weak colony. This has proved to be one of the hardest Springs on bees for many years—cold and backward, with very high winds, keeping the bees in the hives. All through March and April, having had only six pieces of days in which they could gather pollen, one can easily guess the condition the bees are in, and to-day the rain is falling, and it is quite cool. If the bees ever needed sunshine and flowers, it must be now.

W. R. Elwood.
Humphreys, Mo., May 1, 1892.

Prospect is Good.

My 24 colonies of bees came through the Winter all right. The prospect is good for the coming season.

P. H. Wheatley.
Millwood, Mo., May 2, 1892.

Punic and Carniolan Bees.

On Oct. 19, I introduced six Punic queens to as many colonies of black bees in an out-apiary. Two of the colonies died, and the other four are in good condition. One of them is in a double-walled hive, with closed-end frames, and a better colony of bees cannot be found in this country—not even in the Southern States, where they have no Winter. I saw this colony on April 25, and it was then in a condition to swarm. There was capped drone-brood near the top of the frames at the extreme corners, and no less than seven frames filled solid with brood. These bees had not been troubled by any one since the queens were introduced. The colonies in my home yard were almost depopulated by diarrhea, and for this reason I cannot give as good a report as I would like. As all these colonies were fed more or less sugar syrup in the Fall, I cannot say whether it was Fall honey, of which they gathered some dozen pounds, or the syrup fed to them that caused the diarrhea. I brought home some 25 colonies of black bees late in the Fall, and these all wintered nicely. I can show one apiary of 10 colonies of golden Carniolan bees, situated a few miles from Boston, that would make the eye of almost any enthusiastic bee-man twinkle. The hives are full of beautiful bees, and no doubt they will give the owner a large income before the season ends. I introduced the queens to these colonies in June, 1891. From nearly 500 golden Carniolan queens which I reared n the season of 1891, only 3 complaints have been made. This is not a bad record. I am glad that so many bee-keepers were willing to try the new races and new strains of bees.

HENRY ALLEY.

Wenham, Mass.

◆

Rainy Weather—White Clover.

If you have any good weather to spare, please send us a few sunshiny, warm days, to get our bees warmed up so that they can get around a little. We live in hopes that the weather will clear up sometime, but it does not look much like it to-day. The rain is pouring down. Where can I get 8 or 10 pounds of good bees to put in with my light colonies, to help them out in this time of cloudy and rainy weather? My 50 colonies that I put into the cellar last Fall are reduced to 20, and a chance for still further reduction. A Mr. Snow put in 125 colonies last Fall, and has 62 left, and some of them will probably go, too. White clover looks well here, but it is of no use without bees to gather it.

MARK D. JUDKINS.

Osakis, Minn., May 4, 1892.

[By consulting the advertising columns of the BEE JOURNAL a little later, you will doubtless find a number of parties who have bees to sell by the pound. You will then be able to build up some of the reduced colonies you mention as being weak.—ED.]

◆

Kansas Bee-Keeping—Sick Bees.

This is my first year of bee-keeping in this climate. I find that bee-keeping in the South and bee-keeping in Kansas are different things. Last Fall I had 40 colonies in, as I thought, good condition. This Spring I found I had lost during the Winter 8 colonies, and some of the hives had considerable honey left in them. Three have died since the Spring opened—I think they were queenless. The 8 that died in Winter, I think was caused by dampness. I am led to believe that dampness is one great drawback with bee-keepers in Kansas. However, I may be differently impressed after I have further experience. As is well known, Kansas has some very fine weather in Winter, and changes very suddenly. During the Winter we would have warm rains, and in less than six hours everything would be frozen.

I met with one thing last week that I had never heard of before. A swarm of bees came near my apiary last week, and settled. I suppose they had been starved out somewhere. I hived them nicely, then I gave them a pint of thick syrup, made of granulated sugar. In less than an hour I found a number of the bees sick and crawling aimlessly around on the ground. The next morning a number were dead; they would crawl out of the hive, not able to fly, and would start off; some would get a rod away before they became helpless. This was kept up for four days, and finally all died. I am at a loss to know the cause of this strange occurrence. I wish some one would tell the cause. Leavenworth county, Kansas, is, in my judgment, a splendid county for bees and honey. There are a great many fruit-growers in the county, and much timber, with a considerable amount of basswood. My bees are doing well, storing honey very rapidly, and rearing brood.

J. L. WOOD.

Lansing, Kans., May 2, 1892.

◆

Favorable for a Great Honey Crop.

At this date, Central Indiana is just right for bees. The atmosphere is right, being warm and cloudy, with occasional showers. I have not seen fruit-bloom in as fine condition for 20 years. All is very favorable for a great honey crop this year, as well as for fruit. But red clover is not as plentiful as usual, and as it is one of our best honey-plants here in dry seasons, we may yet be disappointed. Bees are in very fine condition, and will be ready to save the harvest if it comes.

R. S. RUSSELL.

Zionsville, Ind., May 5, 1892.

◆

Swarmed on May 5.

The loss in bees has not been as great as expected. Considering the bad weather, they have built up surprisingly well. The first swarm issued on May 5.

W. ROBSON.

Rolla, Mo., May 6, 1892.

◆

Spring Playing Havoc with Bees.

Bees have wintered very poorly, or rather it is the Spring that is playing such havoc among them.

MRS. PARKER ERWAY

Hastings, Mich., April 30, 1892.

Wavelets of News.

Butter Tubs to Hold Water for Bees.

When an apiary is not located near a stream, water should be provided for the bees in suitable vessels early in the season, before they have located their drinking places. After having chosen a drinking place, they will frequent the same during the season.

Bees drinking at neighbors' wells and water troughs, have been the source of disputes and grievances; for horses and cattle will suffer with thirst rather than drink water bordered with bees. Wooden tubs, such as butter is shipped in, make good water receptacles, much better than crockery ware, for bees can climb out of a wooden vessel if they fall into the water, but they cannot from a smooth, glossy receptacle.

Put some cloth into the water, and let it hang over the tub, It will act as a siphon, and the bees will sip the water from the sunny side. Renew the water often, and change the cloths; part of the vessels should contain water slightly brackish (about a tea-spoonful of salt to a pailful of water).—*Exchange.*

Body to Honey.

The honey stored on the prairie, I believe, is thicker than the honey gathered in the timber; there is an abundance of wild flowers here that bees work on, but I think the past season my bees got the most honey from a field of mustard on an adjoining farm.—H. V. Poore, in *Farm, Stock and Home.*

Spring Work, Etc.

Spring is here. How have the bees wintered? In central northern Iowa the mortality is great. The Winter has not been severe, hence the loss has not been caused by severe weather. Last year was a poor one for honey. The colonies not fed in the Fall were not supplied with stores sufficient to carry them six months. Empty hives is the logical result.

As nearly everything produced brings a good price when no one has it to sell, we think honey will be in demand another year. With fewer bees to gather it, the crop is not likely to be extensive in localities where a failure was experienced last year, and bees died of starvation. A year of plenty is likely to follow one of scarcity. Do not let the bees you have left, starve before the honey-flow begins.

A dollar's worth of sugar may save several colonies, and pay several hundred per cent. on the investment. Look well to your bees from now until June 1. See that they do not get out of honey. If they do, brood-rearing will stop, even if they do not die outright, and you cannot get a harvest without workers.—Eugene Secor, in the *Farmer and Breeder.*

Keep Bees Dry.

Above all things keep your colonies dry. Thousands of colonies perish every year by leaking covers. Whenever moisture from without is added to the general moisture or evaporation from the bees within, a damp and chilly atmosphere is the result, which generally proves fatal in frosty weather to the bees. Tin roofs well painted, with ventilating holes in the gable ends, are a sure preventive. A cushion made of coffee-sacks, the size of the hive, and filled with wheat-chaff, is an excellent absorbent of moisture.

Such hives as will not admit a cushion within, can be aided by having a ventilating aperture on top 2 inches square, covered with wire-cloth and a cushion without. Such a cushion must be made of "duck," impermeable to rain, or oil-cloth, so cut as to go over the outside of the hive, and with a drawing-string of twine run through the edge of the cloth so that it can be fastened tight to the hive. Chaff is put into it, and it is then drawn over the hive and tied.—*Farm Journal.*

Different Thoughts and Views.

Many men have many minds, and many bee-keepers have different styles and systems of managing bees. One makes a discovery in a certain branch of apiculture, and another in something else, and so on; and if they would exchange their thoughts and inventions, they would benefit themselves and all interested in apiculture greatly. One could easily write enough to fill an ordinary bee-paper, but this is not the way to do; the views of any person are too one-sided, and the public may tire of them. What is needed is variety, and the more the better. Let every bee-keeper give his opinion on that branch of apiculture that he is proficient in.—*Exchange.*

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BEE JOURNAL

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For 50 colonies (120 pages)	$1 00
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☞ As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.

YOU NEED an Apiary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for $1.25; or for 200 colonies for $1.50. *Order one now.*

◆

Supply Dealers desiring to sell our book, "Bees and Honey," should write for terms.

◆

We Club the American Bee Journal and the Illustrated Home Journal, one year for $1.35. Both of these and Gleanings in Bee Culture, for one year for $2.15.

◆

If You Have any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time.

◆

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

◆

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

◆

When talking about Bees to your friend or neighbor, you will oblige us by commending the BEE JOURNAL to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the Convention Hand-Book by mail, postpaid. It sells at 50 cents.

HONEY AND BEESWAX MARKET.

CHICAGO, May 7.—Fancy comb honey is selling at 16c.; choice, 14@15c. Other grades 10@13c. Extracted, scarce, good demand, at 7@7½c. Beeswax, active sale, 28c.
S. T. FISH & CO., 189 S. Water St.

NEW YORK, May 7.—No demand for comb honey excepting fancy white. Quite a stock on the market of off grades and buckwheat. New Southern extracted arriving and sells at from 70@75c. per gallon for choice; 65@70c. for common. Beeswax quiet but firm at 27@29
HILDRETH BROS. & SEGELKEN,
28-30 West Broadway.

KANSAS CITY, Mo., May 7.—Demand light, supply large. Prices: No. 1 white comb, 13@14c.: No, 2 white, 10@12c. Extracted, white, 6@7c.; amber, 6@6½c.; dark, 5c. Beeswax—Demand good, supply light. Price, 22@27c.
CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI, May 7.—Demand is slow for comb with good supply. Price, 12@15c. Demand for extracted is fair at 5@8c.

Beeswax is in good demand, at 25@27c for good to choice yellow.
C. F. MUTH & SON,
Cor. Freeman & Central Aves.

NEW YORK, May 7.—Demand for honey is very moderate, supply good, exceeding the demand. There is little demand for fancy 1-lbs. Market pretty well cleaned up of that grade, but plenty of fair. Prices: Comb, clover, 8@12c.; buckwheat, 7@9c. Extracted, clover, 6½@7c.; buckwheat, 5½@6c. Beeswax—Demand fair, supply plenty for demand, at 27@29
CHAS. ISRAEL & BROS., 110 Hudson St.

KANSAS CITY, Mo., May 7.—Demand poor, supply light of comb. Fancy 1-lbs., 12@13c.; dark, 8@9c. Extracted, white, 7c.; dark, 5@6 No beeswax on the market.
HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, May 7. — The demand is slow, and supply fair, and will be absorbed by time new crop comes. Comb, 11@12½c. Extracted, 7@8c. Beeswax—Demand moderate, supply fair ; price, 27@28c.
M. H. HUNT, Bell Branch, Mich.

CHICAGO, May 7.—Demand fair and supply short on fancy stock. Comb, 14@15c. Extracted, slow sale at 6@7c. Beeswax—Demand good, supply short on prime yellow; price, 25@28c.
J. A. LAMON, 44-46 S. Water St.

MILWAUKEE, May 7.—Demand very moderate, supply average of all grades but common quality. Best 1-lbs, 15@16c; common, 12@13c. Extracted, white, in barrels, 7c.; in kegs, 7½c; in pails, 7½@8c. Beeswax—demand fair, supply small. Price, 23@28c.
A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO, May 7.—Demand light, supply light. Comb, 10@12c. Extracted, 5@6¼c. Beeswax — Demand fair, supply light. Price, 25@27c. A fair to good honey crop for 1892 is expected.
SCHACHT, LEMCKE & STEINER,
16 Drumm Street.

NEW YORK, May 7.—Demand is light, and supply large, except buckwheat comb. We quote: Fancy white comb, 12@14c; buckwheat, 9@11c. Extracted—Clover and basswood in good demand at 6½@7c; buckwheat ind emand at 5@6c. Beeswax in fair demand at 26@28c.
F. I. SAGE & SON, 183 Reade St.

CHICAGO, May 7. — Demand is slow, supply fair, but not excessive, and market should clean up. Prices: Comb, 15c. is about the top. Extracted, 6, 7@8c.; supply small. Beeswax —Demand good, supply better than last season. Price, 27c. for yellow.
R. A. BURNETT, 161 S. Water St.

BOSTON, May 7.—Demand is light, supply fair. We quote: 1-℔. fancy white comb, 13@15c; extracted, 6@7c. Beeswax—Demand fair, supply light. Price, 28c.
BLAKE & RIPLEY, 57 Chatham St.

MINNEAPOLIS, MINN., May 7.—Demand is moderate, supply of dark is large, but white is not so plentiful. Prices: Dark comb, 10@13c.; white, 15@17c. Extracted, supply plenty. Beeswax—Demand good, supply small.
STEWART & ELLIOTT.

ALBANY, N. Y., May 7.—Demand is very little for comb at 8@12c. Market quiet. Extracted, 6@7c. Beeswax in good demand at 28@30c. for good stock.
H. R. WRIGHT, 326-328 Broadway.

NEW YORK, May 7. — Demand moderate, and supply reduced, with no more glassed 1-℔ nor paper cartons, 1-℔. We quote: Comb, 1-℔, 14@15c. Extracted—Basswood, 7¼@7½c; buckwheat, 5½@6¼; Mangrove, 68@75c per gal. Good demand for dark extracted honey. Beeswax, in fair supply, with small demand, at 26@27c.
F. G. STROHMEYER & CO., 120 Pearl St.

The Convention Hand-Book is very convenient at Bee-Conventions. It contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with Subjects for Discussion. In addition to this, there are about 50 blank pages, to make notes upon, or to write out questions, as they may come to mind. They are nicely bound in cloth, and are of the right size for the pocket. We will present a copy for one new subscription to the BEE JOURNAL (with $1.00 to pay for the same), or 2 subscribers to the HOME JOURNAL may be sent instead of one for the BEE JOURNAL.

Calvert's No. 1 Phenol, mentioned in Cheshire's Pamphlet on pages 16 and 17, as a cure for foul-brood, can be procured at this office at 25 cents per ounce, by express

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THOMAS G. NEWMAN, EDITOR.
GEO. W. YORK, ASSISTANT EDITOR.

Vol. XXIX. May 19, 1892. No. 21.

Editorial Buzzings.

What makes you think the world is round?
Give me a reason fair.
Because so very few are found
Who act upon the square.

◆

Mr. T. W. Cowan, editor of the *British Bee Journal*, is traveling in Northern Africa, looking up the bees of that locality. He intends to return next month.

◆

Mesquite Honey.—Mr. John L. Gregg, of Tempe, Arizona, says: "When I work for mesquite honey alone, I extract on Mondays and again on Thursdays—third and fourth days, and my bees averaged all around 485 pounds to the colony, Spring count. Has any one ever beaten that record? I think not. Mesquite honey, to my taste, is far ahead of any other variety, and it is in the true sense of the word white honey, as it is as clear as water."

The Late Season we are having may not be wholly an unmitigated evil, as warm and moist weather is just such as is required for the secretion of the greatest amount of nectar for the bees. While it may be a very late Spring, it is quite probable that the honey season will extend further into the Fall, and thus balance the backwardness of the present spring-time. Among those depending upon farm crops, there is no little uneasiness in this region, as very little corn has been planted, though very fair crops of corn may be secured by planting early-maturing varieties as late as June 10, should that be necessary, if the season thereafter be favorable. Late-planted corn will mature in a less number of days than corn of the same variety planted earlier. One advantage of the lateness of the season for bee-keepers, is the fact that they will have more time to provide all necessary things for securing the harvest of honey when it does come. But there may be danger of forming the bad habit of delaying or "putting off" until "a more convenient season," which is very discreditable, indeed. It pays to be prepared for any emergency in life—and especially in bee-keeping. In some places clover has made a very encouragin start, and it is also quite plentiful. When the season once opens, it is earnestly hoped that it will remain open.

◆

Sweetened essence of peppermint is used to advantage while introducing queens. This scented water is put into an atomizer, and the bees and combs thoroughly sprayed with it, then the queen is placed on one of these scented combs, a little of the spray thrown on her, and the hive closed. This plan is said to work more successfully than many of the old plans, and admits of immediate introduction of the queen.

◆

Queenless Colonies and those which are weak should be united. Feed the bees if it becomes necessary.

Spraying of Fruit-Trees.—Mr. F. A. Gemmill, President of the Ontario Bee-Keepers' Association, sends us Bulletin No. 73, on this subject, published by the Ontario Agricultural College Experiment Station, and also the discussion while the Act was before the Legislative Assembly, from which we make the following liberal extracts:

The Legislative Assembly of Ontario, at the late session, passed the following Act, in reference to the spraying of fruit-trees and the protection of bees. Following it will be found a brief summary of the evidence taken before a Special Committee of the House in connection with the consideration of this Bill:

AN ACT FOR FURTHER PROTECTION OF BEES.

(Assented to April 8, 1892.)

1. No person in spraying or sprinkling fruit-trees during the period within which such trees are in full bloom, shall use, or cause to be used, any mixture containing Paris green, or any other poisonous substance injurious to bees.

2. Any person contravening the provisions of this Act, shall, on summary conviction thereof, before a Justice of the Peace, be subject to a penalty of not less than $1.00, or more than $5.00, with or without costs of prosecution, and in case of a fine, or a fine and costs being awarded, and of the same not being upon conviction forthwith paid, the Justice may commit the offender to the common gaol, there to be imprisoned for any term not exceeding 30 days, unless the fine and costs are sooner paid.

3. This Act shall not come into force until the first day of January, 1893.

EVIDENCE AS TO SPRAYING FRUIT-TREES.

Mr. Allen Pringle, ex-President Bee-Keepers' Association, Selby, gave evidence as to bees being killed by Paris green sprayed upon fruit-trees, referring to various accounts taken from bee-papers. He cited Prof. Cook, of Michigan, as authority. He had no experience himself as to effect of poisonous spraying upon his bees.

Mr. F. A. Gemmill, President Bee-Keepers' Association, Stratford: Bees will feed upon sweetened matter that contains poison. Spraying during bloom is only throwing away time, labor and money. When bloom has fallen is the proper time.

Mr. Wm. McEvoy, Bee-Inspector, Woodburn: He had heard many complaints that bees are being poisoned. Had seen them dying and dead; thought the honey also might be injured by poison being carried to it by the bees.

Mr. Gemmill did not think the honey would be affected; as when spraying is done, the honey is being gathered for brood.

Mr. Gilmer said only one fruit-grower in his neighborhood sprayed; there was no loss, however, as he did not spray during bloom.

Mr. A. W. Peart, fruit-grower, Burlington: Had been for sometime in the habit of spraying apples, plums and cherries immediately after fall of blossoms. Did so because the blossoms are much more tender than the leaves. The bees play a very important part in cross-fertilization, and therefore should not be destroyed. Had had success in spraying, trees sprayed giving more bountiful harvest than those not sprayed. Thought this Bill was in accordance with the researches on these lines for the last ten years. Fruit-growers in his district delay spraying until after the blossoms fall, and are favorable to this Bill.

Mr. P. C. Dempsey, fruit-grower, Trenton: Had sprayed for over 30 years; with Paris green for only five or six. Sprayed only after blossoms fall. Since he had sprayed he would not find in 50 barrels of apples one barrel of bad ones, whereas before spraying was introduced, it would have been difficult to get that number of really good ones. As to injury to bees, he keeps 150 colonies of bees right in his orchard, and has never seen any of them suffer on account of spraying. Never sprayed during bloom. He sometimes sprays cherries and plums before the petals drop. He believed a Bill prohibiting spraying while in full bloom would be a benefit.

Mr. G. E. Fisher, fruit-grower, Burlington: His experience corresponded to Mr. Peart's. We are very generally dependent upon insects for the fertilization of our orchards. To destroy them to any extent would be very injurious to fruit-growers. He thought this Bill is just what fruit-growers require. If a man does not know enough not to spray while his trees are in full bloom, there should be an Act to prevent him from doing so. He had had no experience as to bees being injured by Paris green. A gentleman in Burlington told him that one of his neighbors used Paris green on his trees while in full bloom, and while it was going on he noticed that many of the bees died.

Mr. E. Morden, fruit-grower, Niagara Falls, had never yet heard a speaker who advocated spraying in full bloom. The codling moth and curculio do not deposit eggs on the blossom, but on the calyx of the embryo fruit. The curculios do not appear until about a week after the blossoms fall; then they are very numerous for about ten days, after which they become comparatively rare. It is during these ten days that we ought to spray.

Mr. Kew, fruit-grower, of Beamsville, thought sufficient evidence had been given to show that the bees would be injured by the use of poisonous substances at an improper time.

Prof. Jas. Fletcher, Dominion Entomologist, Ottawa, stated that the pistil of the blossom is very sensitive, and a very weak solution of Paris green would destroy it, and prevent the formation of fruit. Bees are much more easily killed than other insects. There is no accurately recorded experiment as to whether or not bees have been killed by spraying, An experiment has been arranged. He did not believe the honey is at all affected. The poison taken by the bee is in the nectar that comes from the flowers, and before the bee can deposit it, the bee is dead, so that the honey in question is never deposited. Even if the bee did not die before depositing it, this honey is used not for surplus, but for feeding the young.

The following excellent remarks are from *Insect Life* for April, 1892, and should be read by all those interested in fruit or bees: "At last fruit-growers and bee-keepers are getting into right relations with each other. The numerous discussions which have taken place regarding the value of bees as fertilizers of fruit blossoms, and of those blossoms of plants grown for their seeds, and regarding the alleged damage to fruit by bees, have led to close observation and careful experimentation, the results of which show that the interests of these two classes of producers conflict, but in trifling respects—that, in fact, bee-keepers and fruit-growers are of great help to each other, and even indispensable if each is to obtain the best results in his work." The article in full was published on page 634 of last week's BEE JOURNAL.

* * *

Queen Bees may now be sent safely by mail, not only in America, but also to Europe, and even Australia. It is over 30 years ago since queens were first sent in the mails.

Electricity as a means of imbedding wires into comb-foundation is not only practical, but is also an economical method of doing it. In the last issue of *Gleanings* Mr. Root remarks as follows about his experiments in that line:

> Some two months ago a correspondent of the AMERICAN BEE JOURNAL stated that he had succeeded in imbedding wires into foundation by means of electricity from a battery. This set us to thinking and experimenting, although we had entertained the same ideas some eight or ten years previously; but on account of the intersecting wires by the old way of wiring, the plan was not feasible.
>
> But since we are beginning to use the horizontal plan, no wires intersecting, so that a current can be run from one end of the wire to the other, the matter has assumed a new aspect. Since that time we have been imbedding the wires to a lot of frames by electricity. The form of battery that we now employ is three cells of bichromate of potash, each of a gallon capacity, with the carbons in the large cell, and the zinc in the usual porous cup.
>
> After the job is done, the wire lies nicely imbedded in the center of the wax; and, more than all, it is covered with a very thin transparent coating of wax. Sometimes bees are inclined to gnaw around the wires; but we imagine that, if the wires were covered with a film of wax, the bees would be less inclined to do so. However, experiment will decide this point.
>
> At present it looks as if imbedding by means of electricity might not be so very expensive after all, and especially so if we consider the nicety of the work. We imbedded, this morning, the wires of about 50 frames into foundation by electricity, and the work is beautiful. By timing ourselves we found that we could put foundation on wires at the rate of three frames per minute; so that we think the imbedding could easily be done at the rate of 150 frames per hour.

* * *

One Day, at luncheon, Mamie was very greatly delighted with some honey which had been sent her by a friend who lives in the country and keeps bees. After eating awhile in silence she exclaimed: "Doesn't Mrs. Lepley teach her bees to make nice honey?"

Bees and Fruit.—In a recent issue of the *Indiana Farmer*, we found the following in "The Apiary" department, credited to a "sensible fruit-grower:"

> I have purchased five acres more of land, which I hope to plant in fruit-trees, and have enlarged my apiary in order that I may take 10 colonies of bees to my newly-purchased ground when planted, for I am more fully convinced than ever that fruit-culture and bee-keeping ought to go hand in hand.
>
> The nonsense about bees eating fruit, and so spoiling the profits of the pear and grape grower, has been believed about long enough. It can be safely asserted that honey-bees do not trouble fruit unless it has been attacked, and the skin punctured by wasps or birds, and their aid as a fertilizing agent is almost indispensable.

Here is a fruit-grower's testimony. On account of his experience with fruit and bees, he bought more land for fruit, and 10 colonies of bees to fertilize the blossoms and increase the product. *He knows by experience that it will pay to do so!*

It is then stated that it is time to discontinue the nonsensical talk about bees injuring pears and grapes—that "their aid as a fertilizing agent is almost indispensable"—that wasps or birds puncture the skins—that "it can be safely asserted that honey-bees do *not* trouble fruit, etc."

Then comes the most surprising part in a foot-note by the editor, which reads as follows:

> We are not prepared to endorse the last statement. The bees conduct themselves very suspiciously, if they are innocent. We are inclined to believe that some of them learn to get into the grapes without the help of birds, while others may not have done so.

We looked in vain at the heading of the Department to find who is responsible for this "tid-bit" of comment—but, alas, there seems to be no one to father it! In times past several good apiarists have had control of it, but now some "nobody" is at the helm who assumes to throw doubt upon the experiments of men of ability and honor who have given the most positive testimony in harmony with the assertions and experience of the fruit-grower quoted in the item commented upon!

We respectfully call the attention of the editor of the *Indiana Farmer* to the injustice done to the pursuit by the article in question, and refer him to the following letter from another prominent fruit-grower on the subject:

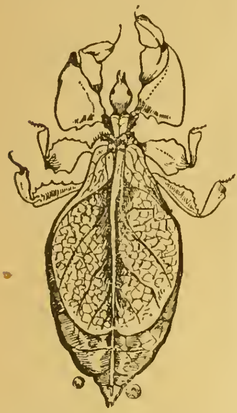
> I see that there is considerable said from time to time about bees damaging grapes, as well as some other kinds of small fruit. I claim that it is all "bosh," unless the fruit is first injured in some way or another. I make this assertion from my own experience in growing grapes in the same yard with a number of colonies of bees, at the same time using the grapes as shade for the bee-hives. As my attention has been called to this matter at different times, I have given it much thought, and watched it most carefully.
>
> In the last three years there has been only two instances where the bees have worked on grapes in the least.
>
> In the first instance the damage was caused by the chickens picking and eating the lower branches, or clusters, that were hanging low down within their reach. The second instance was caused by a very severe hail-storm, which bruised or punctured the grapes enough to expose their seeds, enticing the bees to work on them. This lasted only for a few days, until the bruises became seared over. You will observe that in both instances the fruit was first injured before the bees would have anything to do with it, and I do not believe that bees will hurt grapes or other kind of fruit, unless such fruit is damaged by something else. Using them as I do for shade for bee-hives, large clusters of the delicious fruit hang all around the hives—yes, and even within a few inches of the entrance to the hive. This must certainly give a pretty good chance to test the matter. In conclusion I will say that I really believe that the most of this complaint is caused by prejudice.
>
> Boscobel, Wis. B. E. RICE.

* * *

A Man was recently convicted in New Hampshire for selling artificial honey, and sentenced to pay a fine of $100.

A Very Remarkable Insect.

Our cut represents a large specimen of the "walking leaf" insect of India. The color of the insect is like a fresh green leaf, which favors the deception so that it is almost impossible to see it among the jungle foliage unless it moves. It has six legs, each resembling two small leaves, and the veins throughout appear of a paler tint, in exact imitation of a lime leaf. The insect is a rare and conspicuous species of the Phasmidæ family, and its remarkable formation is sure to interest the general reader as well as the naturalist.



WALKING LEAF INSECT.

◆

Hicks, the Missouri storm prophet, in *Word and Works*, says: "Tell our passengers in plain English just what you know on the subject. The very minute we begin to write what we do not know, the world itself would not contain the books we might write." This will apply to bee-literature as well as other matters. So says an exchange.

◆

Mr. C. A. Hatch, President of the Wisconsin Bee-Keepers' Association, writes thus to the Secretary, Dr. J. W. Vance, concerning the honey exhibit of that State at the World's Fair:

> I think 300 feet ample room. Ten by 30 feet will hold quite a lot of honey and beeswax. According to present indications this is all that will be allowed State exhibits. Hives, fixtures and bees will be shown by the department as a whole, which, I think, is a wise arrangement, as there is so little difference in bees that individual exhibits would be out of the place.
>
> Whether we are to make our show as a society in connection with Wisconsin's State show, or as a part of the regular bee and honey department show has not yet been determined. All arrangements for the separate department for bees and honey are, as yet, only provisional. We hope that all will soon be arranged on a satisfactory and permanent basis. Dr. Mason is pushing things along as fast as he can, I am sure, and probably before the honey harvest begins, things will be brought into proper shape.

Yes; everything is done that can be to hasten arrangements—but large bodies move slow.

◆

Chemical Bulletin No. 13, Part 6, just issued from the United States Department of Agriculture, is one of the series of bulletins reporting upon investigations relative to the adulteration of foods, drugs and liquors. For these investigations Congress provides a special appropriation to be expended under the direction of the Secretary of Agriculture. The part which has just appeared treats of the adulteration of sugar, molasses and syrup, confections, and honey and beeswax. It departs somewhat from the plan followed in the parts previously issued in devoting less space to the methods of detecting adulterants, and in giving greater attention to the extent to which adulteration is practiced. We will give it further comment next week.

◆

R. C. Aiken, in the *Review*, says that not one-tenth of the alfalfa fields are given a chance to yield honey. It is cut for hay before full bloom, and it is only fields left for seed, or scattering plants, that yield the honey.

◆

Louis Werner's apiary was destroyed by a bursting-cloud in Madison County, Ills., last Winter. He lost 100 colonies of bees, and now has 1,000 combs to melt up. With buildings, etc., destroyed, his loss is not less than $700. As might be reasonably expected, he is now suffering with sciatic rheumatism, after having waded in the water all night to try to save his property. We sympathize with our brother in his sad affliction.

Queries and Replies.

Mating of Young Queens.

QUERY 819.—1. What is the ordinary distance from the hive that a young queen mates with the drone?—North Carolina.

I do not know.—E. FRANCE.

I do not know.—R. L. TAYLOR.

I "give her up."—H. D. CUTTING.

Nobody knows, or can know.—M. MAHIN.

Anywhere inside of three miles.—J. P. H. BROWN.

I do not know anything about this.—P. H. ELWOOD.

Ask Mr. Doolittle. I do not know.—J. M. HAMBAUGH.

This is guess-work. Probably a mile or so.—DADANT & SON.

We may all quote Dr. Miller now, for no one knows.—A. J. COOK.

I don't know. In all probability, near the home yard.—MRS. J. N. HEATER.

Some say a quarter of a mile, but more think a half mile or more.—C. C. MILLER.

I don't know, but I presume the distance is usually not more than a few rods.—C. H. DIBBERN.

I don't like to rob Dr. Miller of his "I don't know;" and if he says he knows, I shall want to *know* how he *knows* so much.—A. B. MASON.

No one can tell positively, but facts go to show that queens often, if not usually, mate at a distance of a mile or more from the hive.—J. A. GREEN.

This is a question on which there are many and varied opinions. I do not think that any one can answer positively from actual knowledge.—J. E. POND.

I don't know, but I am led to believe that *sometimes* either the queen or the drone flies a couple of miles, or else they meet between the two points.—EUGENE SECOR.

I don't know. I suppose it is varying from one rod to a mile or two. I don't know how far the drones go. I have known the black and yellow bees to mix four miles apart.—JAMES HEDDON.

That probably depends upon the number of drones flying at the time the queen makes her bridal tour; if there are plenty of drones in the air, she would not have to go far.—MRS. L. HARRISON.

My observation has been that the queen never flies far from the hive, but the drone, having powerful wings, flies long distances in the search for young queens.—G. L. TINKER.

From one-fourth to seven miles, according to the time of year, and other circumstances. One July and August I had one-fourth of my queens mate drones four miles away.—G. M. DOOLITTLE.

It is owing to circumstances. When drones are plentiful in the yard, I have thought one-half mile safe; but in rare instances they have been known to go from three to four miles. To divide the distance, I would say 1½ to 2 miles. But to answer the question to the point, the ordinary distance my queens are mated is within a short distance from the apiary.—MRS. JENNIE ATCHLEY.

I really don't know if there is an "ordinary distance" connected with the matter. It depends so much upon circumstances that no one will ever be able to fix the ordinary distance of their flight. I once, to carry out an experiment, confined a virgin queen until she became so alarmed about her future usefulness that she mated in less than 15 minutes after being set at liberty. In this case she could not have gone far. As a rule, I think queens are mated within one-fourth of a mile of their home.—G. W. DEMAREE.

That question is surely "speculative." Who could definitely announce the "ordinary distance" of such a transaction, when it usually takes place beyond human sight? The facts are, that but very few have ever seen the act of copulation—so very rarely is it accomplished near the apiary. To answer the question as definitely as possible, it might be said that mating generally takes place within a radius of two or three miles.—THE EDITOR.

When Writing a letter be sure to sign it. Too often we get letters with the name of the post-office, but no County or State. One such came recently, and we looked into the Postal Guide and found there were places by that name in 13 States. Be sure to stamp your letter, or it may go to the dead letter office, in Washington, D. C.

The Flowers and the Bees.

G. W. Y.

In Spring-time's early morning,
When Winter's chill is past,
The flowers come adorning
Where'er the eye is cast ;

In woodland and on mountain,
In valley and in glen.
And 'round each bubbling fountain
The flowers bloom again.

Their fragrance cheers the saddened.
The sorrowing and oppressed—
Their beauty blesses, gladdens—
The flowers bring peace and rest.

Besides this glorious mission,
These fragrant blossoms bring
A wonderful transition
Among the bees in Spring.

Pent-up within each flower
Are drops of nectar sweet,
That form the "honey-shower"—
For men and bees, a treat.

Thus bees and flowers, together,
Are the sweeteners of earth,
And in the Spring-time weather,
Are full of life and mirth.

Chicago, Ills., May 2, 1892.

Topics of Interest.

Judging Bees at Fairs.

GEO. F. ROBBINS.

Messrs. S. F. & I. Trego, on page 421, wonder where I got my "prevailing verdict" as to the superior qualities of darker Italian bees as compared with the lighter strains, and add, "Surely not in the advertising columns of the bee-papers, or in the number of orders such advertisers are receiving."

No, of course not. Messrs. Trego will certainly admit that the way anything, especially any new thing, is puffed in advertisements, is no evidence of worth. Too often it is quite the reverse, as with new varieties of grapes, strawberries, etc. Neither is the volume of orders the breeders of yellow bees are receiving, of itself proof of merit. Four and five banded bees are a comparatively new thing, and of course everybody wants to try some of them. The fact that they are having a boom now, is no proof the boom will last. That old customers are coming back again is better testimony in their favor, and if the "prevailing verdict" is really in their behalf, I am ready to be convinced. I have no "ax to grind" in this case.

But I have in past years seen much in the bee-periodicals concerning the superior qualities of the darker strains, and condemning the growing practice of breeding to color. I believe such have largely had reference to Albinos—a type of bees, by the way, that are not now puffed so much as they used to be. Where I have seen such expressions I cannot now recall, except in two or three cases. One of the most pronounced I have seen is in the proceedings of the New York State Bee-Keepers' Convention of 1890, I think. I have not time to look it up, but as near as I can remember, it was claimed there that the leather-colored Italians went into sections more readily, gathered more honey, and capped it whiter than the yellower strains—a verdict that went unchallenged.

At the Sangamon Fair, last Fall, two eminent bee-keepers—J. M. Hambaugh and A. N. Draper—expressed themselves in favor of the darker Italians. Although I have not tested the two types thoroughly, I do rather lean toward their view, notwithstanding the fact that I had the yellowest, prettiest bees at the Fair—and got left in consequence.

Mr. Wallace, on page 548, repeats substantially the same view he freely expressed to me at the Fair. He argues for improvement of the races of bees by breeding, but his "improvement" seems to all lie in the line of color. He does make the same claim for his bees that is generally urged for golden Italians, etc., *i. e.*, gentleness. But that superiority as honey-gatherers, and for other traits essentially accompanies beauty of color and quietness of diposition, remains to be proven.

I repeat, however, what I have intimated before, that I was not quite certain of my ground when I fixed that standard. That entire article was "thrown out as a feeler." I wanted the views of others. The questions now are, Shall the standard be settled in favor of the golden or five-banded Italians—the yellower the bees the higher the scoring? Or shall we have no standard at all, and give judges entire liberty ?

The *Progressive Bee-Keeper* wants the two types recognized with a standard for each. That might do if Fairs would be willing to grant two or more premiums where they now grant one, and we knew it would not furnish a precedent that would cause about forty-'leven other tyes or strains to bob up and demand recognition.

After all, I have all along thought pretty much as Mr. Hutchinson expresses himself on page 383, viz: "I have little faith in judging of bees by looking at them at Fairs." If we could all agree on a standard, it would not be quite so hard; still I could take hybrids to a fair and enter them as Italians, that would show up as well as those that carried off the prize at Springfield last Fall. See my article on page 479.

Mr. Draper, as a member of the committee, appointed by the State convention last December, to draft a premium list, objected to offering premiums on single nuclei of bees. He would have it the "best display of bees," etc. I am not sure but the principal objection to that is, the precedent is all against it. The difficulty in fixing a standard, and the uncertainty in judging of quality, are all in its favor.

The principal reason for showing bees is to make an apiarian exhibit attractive, imposing, interesting, educating. To offer premiums on a general display of bees would bring as many and fine ones to a Fair as any other method, while rules and standards could be much more satisfactorily adjusted. But so long as the premium is to be awarded to the best nucleus, I see no reason to recede from my scale of markings.

That one given by Messrs. Trego, I deem very defective. They would give 30 points to size of bees, and only 20 to color, etc. What can we tell about the comparative size of bees in a glass cage? Is there any difference in the size of a golden Italian and a rabid hybrid? How much of a figure does that cut in determining race, purity or value? In fact, the only points by which we judge bees except as we observe their habits are color and markings. Yet they would reduce the scoring in this case down to 20.

To give only 5 points to style of hive is also a great mistake. In framing that code of rules I early settled upon this general rule, viz: An exhibit in any class should be marked on a scale of 100, that scale to be as nearly as possible subdivided as follows: Quantity, 40; quality, 40; style of display 20. That rule cannot be exactly adhered to in the case of nuclei of bees, but the last item can be more nearly than either of the others.

Now, the manner of arranging or putting up anything for exhibition is no slight affair, and in case of bees where it is so difficult to judge of quality, and so much depends upon mere attractiveness, the style of house in which they are made to dwell, should not be so lightly esteemed. Style of hive is style of display, and should not be marked on a scale of less than 20.

Mechanicsburg, Ills.

Classification of Honey, Etc.

C. L. BUCKMASTER.

There is a great deal said on this subject, yet there seems to be no conclusion reached. There is no need of a classification in regard to variety of honey. All that is needed is 1st, 2nd and 3rd class honey, having reference to the way the honey is put into the sections, and the condition of the sections. Whoever heard of second quality basswood honey, or second quality white clover?

Now there might be different qualities of honey-dew, but who would try to sell the black stuff for anything but honey-dew? I believe the quality of honey taken from the apple-tree bloom a thousand years ago is exactly the same as it is now. I shall have my labels read, 1st class, 2nd class, or 3rd class honey; and leave a blank for variety.

STANDARD SIZE OF SECTIONS.

There ought to be a standard size for the honey section, and that size ought to contain, when filled in first-class style, just 16 ounces. The 4¼x4¼x1⅞, when filled in first-class style, with separators, just holds 12 ounces. The bee-keeper cannot sell this for a pound package, and if he did, he would not be dealing honestly every time he sold one. Full weight is the only way to do business, and he who tries to do business with a short yard-stick, or a false gallon, or with light weights, will never succeed.

What would you think of a man that retails 4¼x4¼, seven to the foot sections, for one-pound sections? You know that if you were buying you would be getting only one-half pound of honey, and your groceryman was lying just one-half a pound. Of course he would not deceive you, but how many innocent and ignorant are there who would be deceived?

If the bee-organizations of the United States do adopt a standard section, it is to be hoped, for the common honesty of the craft, that they select one that will hold 16 ounces of honey.

BEE-KEEPING IN CENTRAL MISSOURI.

School is out, and I am again in the apiary; but all is not happiness, for I find 10 of my 32 colonies dead, and about 6 others very weak.

I made a sad mistake last Fall, and have learned a good lesson which I will not soon forget. I know now that it will not do to rob with the expectation that bees will get plenty of Spanish-needle honey to winter upon.

While there was plenty of Fall-flowers where I was teaching school, and the bees filled their hives full of the finest Spanish-needle honey I ever saw, yet mine got scarcely any whatever. How easy it would have been for me to have reserved a few brood-combs full of honey, and had them ready for my starving bees. It is so easy to keep a hundred pounds of honey in brood-frames, and it is so easy to put them in by the side of a starving colony.

Columbia, Mo., May 6, 1892.

"The Winter Problem."

G. R. PIERCE.

About Feb. 1, 1892, I received a letter from Mr. D. C. Leach, of Walton, Mich., who was visiting his children in Springfield, Mo. He is an entire stranger to me, and his sending this letter expressing his pleasure in reading my book—"The Winter Problem"—was so hearty that I requested his permission to have it published in the AMERICAN BEE JOURNAL. I gather from what he says, that he has been a devoted lover of bees, though not strictly a "bee-keeper," as we generally use the word.

Blairstown, Iowa.

[The letter referred to by Mr. Pierce, written to him by Mr. Leach, reads as follows:—ED.]

I have just finished reading, with deep interest, the "Winter Problem in Bee-Keeping." I like it. It confirms me in an opinion I have long entertained, that the instinct of the honey-bee was not a blunder on the part of the Creator.

I have been an amateur bee-keeper for the greater part of my life (I am now 69). In my earlier years I used the box-hives. My father before me used the "gum," a section of a hollow log, from 15 to 18 inches long. I do not remember that he ever had a colony frozen in Winter, and I cannot recollect that I ever had, while I used the old-fashioned box-hives, although I lived in central Michigan, where the mercury often went below zero, and not unfrequently to 10° or 20° below. One Winter, I well remember, it went to 23° below zero, yet my bees, on the summer stands, without protection, came through all right; so, also, did those of my neighbors.

My hives were made of undressed inch boards; 12 inches wide. The height of the hives were from 14 to 18 inches; hence, inside measurement, was 10x12x14 to 18 inches. All parts of the hive, except the entrance at the bottom, were, after the bees had done their part, absolutely air-tight. There was no chance whatever for "upward ventilation."

Well, I never was an "old fogy;" I believed in "keeping up with the times," so I accepted the movable-frame hive, and with it the "upward ventilation" theory. Yet I never in my life prepared my bees for Winter, with the cushion and chaff above them, without wondering why they were imbued with the instinct to make the top and sides of their hives air-tight. I never could feel that I was doing quite the right thing by them when I removed the perfectly sealed top board, and gave them the cushion and chaff. But I was a busy man, giving a few hours of recreation to my bees, while all wise men, who made bee-keeping a business and a study, said it was the thing to do. So I did it. I might have seen that the bees, with the Creator on their side, were wiser than all their keepers.

Now, do not your experiments show that the form of our hives might be improved? Would not a hive 10x10x20, or 10x12x18 inches, inside measure, be an improvement? In such a hive a strong colony, in Winter, would be able to occupy all except the two outside frames, and, with their stores nearly all above them, could move gradually and safely upward, thus utilizing the heat given out by the cluster. I have so much faith in this view of the matter, that if I were a young man, and situated so I could attend to it, I would try the experiment.

Referring to what you and Rev. W. F. Clarke say as to why bees select their homes in trees high up from the ground, I will simply remark that it is because they find the hollows and the holes to get into them some distance above the earth.

There are probably a hundred trees that furnish them accommodations from

20 feet upwards, where there is one that would suit them lower down. I have seen bees that I am confident were scouts hunting a home, begin near the ground and examine upwards. I have also known them to locate within 3 feet of the ground, and even in a box-trap set for rabbits. D. C. LEACH.

Do Bees Injure Fruit Crops?

W. S. DOUGLASS.

The question, we are sorry to say, of bees injuring the crops, has had many advocates. It is nothing but a silly prejudice against bees, entertained by some covetous fruit-growers, based on the notion that the crops are injuriously affected both in quantity and quality. It is an unfounded notion, and it deserves no support from close observation and science. Yet it occasionally looms up, and creates much alarm, as the comet did in the past days.

I claim that nectar passes off and is lost if not collected by the bees. It is the sweet secreted by the flower which produces this nectar.

A gentleman in France, several years ago, established a green-house and stocked it with a great variety of choice fruit-trees, expecting to have bountiful crops. Time passed, and every year there was a super-abundance of blossoms, but very little fruit. Various plans were devised and adopted to bring the trees into bearing, but without any success until it was suggested that the blossoms needed fertilization, and that by means of bees the needed work could be done. A colony of busy workers was introduced the next season, and the remedy was a success. There was no longer any difficulty in producing crops there. The bees distributed the pollen, and the setting of fruit followed naturally.

But some will contend that bees do injury to the crop by extracting the honey from the bloom; and they will say that it is reasonable that if a portion of the plant is taken away by the bees, there must be a less quantity of material left for the formation of seed! It is a fact that if a person has an opinion formed, he will build up strong proofs in his favor, which, he thinks, he can substantiate by satisfactory reasons.

The flowers expand, and a set of vessels pour into the cup, or nectary, a minute portion of sweet liquid; and strong testimony proves very plainly that it never again enters the stalk or flower, but there it evaporates like water. For instance, in passing a field of horsemint in full bloom, we are assured of the presence of honey, by the odor in the air. Now, what is the difference, whether this honey passes off in the air, or whether it is collected by the bees. If any difference, it appears in favor of the bees getting it, for it thus answers an important end in the economy of nature.

Instead of the bees being an injury to the crop, I shall prove that they are an advantage. The stamens and pistils of flowers corresponds to the different organs and sexes of the male and female. The stamen is the male, which furnishes the pollen; the pistil is the female, which must be impregnated by this dust or pollen from the stamen, or no fruit will be produced.

This is fully accomplished by the bees traversing from one flower to another, and carrying the pollen, sticking to their legs and wings, to the next flower, and impregnating the pistils of it. This was the case with the Frenchman's greenhouse. The necessity was seen and planned by the all-wise Creator. He has created the bee for the flower, and the flower for the bee; endowed the plant with the power of secreting the liquid sweet, and given the honey-bee the instinct to search after it and treasure it up for its own as well as for man's wants.

The prejudice against bees injuring the crops has no foundation, and I hope that the day is dawning when it will wholly disappear.

Lexington, Texas.

A Few Apiarian Don'ts.

J. A. NASH.

Don't make a veritable curiosity shop of your apiary, by filling it with a job-lot of hives of all the different patterns you can hear of, just to see which is best.

Don't wait until there is a heavy honey-flow from clover or basswood before you order those new hives and sections.

Don't write a long, abusive letter to the suffering supply dealer about July 15, asking him why those sections you ordered by telegraph yesterday noon had not arrived at the depot.

Don't sell your honey in any shape, and for any price your local grocer may see fit to pay you.

Don't go to dinner and leave that big swarm of Italian bees hanging in the hot sunshine.

Don't make that common mistake of crating the nice white sections next to the glass, and the dark ones in a "family group" in the center.

Don't put in too much time talking politics at the village store during swarming time.

Don't put off that little job of September feeding until the following Spring, and then wonder how it comes that some people have such luck with bees!

Don't leave your bees out so late in the Fall that you have to chop the ice off the hives before you can house them.

Don't———; but I know you will—some of you.

Monroe, Iowa.

Hive for Wintering on Summer Stands.

BENJ. E. RICE.

I wish to offer something to those that are interested in bee-culture, and especially that class of bee-keepers that are always ready to grasp a good thing when it is offered to them.

How often, when we read about some new hive or convenience used in the apiary, have we wished that we had it, and if it were not for the words attached to it—"patent applied for"—we could easily make all we wished ourselves.

Now let me tell something pertaining to wintering bees on the summer stands, which I have tried myself, and it has proved to be very successful, and also saved a good deal of hard work, and much anxiety during the long Winter months. It is simply to take the hive that one may already be using, and add material to its outside dimensions which makes it as good, if not better, than the celebrated chaff hives to Winter bees in.

It is constructed as follows: First, take oiled building-paper and cover the outside of the hive, then furrow up with lath, and cover over with oiled paper again; then one more course of lath, then cover again with oiled paper, and then cover the entire body of the hive with good ceiling, or some other good material. This makes three courses of oiled paper around the hive (or brood-chamber), and one course of ceiling, making two dead-air spaces.

There is also one course of oiled paper on the bottom of the hive, covered over with half-inch material, making a double bottom.

These hives, made in this way, are pretty heavy to handle, but not nearly so bungling as the chaff hive, if I am not misinformed about them.

There is another decided advantage about these hives, and it is because they are cool in Summer, and do not need to be shaded. The bees are less inclined to cluster on the outside of them in hot weather, as they do in single-walled hives; and the cost of this hive complete, without inside furniture, is between one-third and one-half cheaper than the chaff hive, and there is no patent on it. This hive can be made from new material for about $2.50 each.

Last Fall I made 14 of them, and transferred the same number of colonies into them; prepared them for Winter, by giving them enough honey for the purpose, and left them on the summer stands, which are about 16 inches above the ground. During the Winter they had two or three cleansing flights, which, I think, helps them a good deal.

I did not lose any of the colonies, and they are much the best at the present time (April 30) that I have in my yard. My other bees were wintered in a cellar, which was too damp, and I have fully decided to entirely do away with cellar wintering, and, in fact, all other methods of wintering, only on the summer stands in well-protected hives.

All of my bees are now in the Winter hives, and I dare say they appreciate it, as the weather remains down to the freezing-point and snow-squalls.

My bees have wintered fairly well, and I have no reason to complain. I have lost only 5 colonies up to the present time.

Boscobel, Wis.

Taking Bees Out of Cellars.

FRANK COVERDALE.

The time of taking bees out of cellars is a matter of grave importance, second to that of wintering well. He who takes his bees out of winter quarters early in March, or even late in March, is very likely to have great loss of colonies, not only weakened in numbers, but many will die outright. During the first half of April they will dwindle enough.

As years pass, I become still more convinced that each hive should be faced to the north as soon as taken from the cellar; and still I am just as much in favor of not preventing that chilly northern breeze that serves so well to keep the bees at home on days not fit for them to fly. If you can save the old bees through April, you need not fear, for good results will follow; but if one-third to one-half be lost by the chilly breezes of early Spring, it will be hard to bring them up to good strength for the clover honey harvest.

Now (May 6) my 72 colonies have just been overhauled, and found without exception in normal and uniform strength of old bees (3 colonies have died since moving from the cellar), the most variation being in the difference in brood-rearing, as some queens are more prolific, while others do not lay as many eggs as the old bees can keep warm. The reason of this is that no honey of any account has been gathered as yet this Spring. It is cold and rainy, and as there is not going to be much fruit-bloom, I think I will have to feed to keep up brood-rearing.

If the bees could have gotten out, nectar was quite plentiful both from maple and willow. Again, bees have not as yet been able to secure enough pollen to keep up rapid brood-rearing.

The loss of bees in this part of Iowa has been very heavy. Just three miles southeast of my apiary, where over 200 colonies were in good condition, now only about 40 remain. North of here the situation is some better. Many of the bees were taken out of cellars early, which, with honey-dew, has caused the heavy loss.

Now, as many of the bees are dead, and much of the white clover is destroyed by the freezing of snowless Winters, we may have clover in proportion to the bees that are left.

Welton, Iowa.

Comb-Honey Grades Settled at Last.

A. B. MANN.

California wants to help Missouri out on his article on page 549, and have it settled. We will settle the grading question on Mr. Weller's basis, and have done with it.

Here we have the true inwardness of the grading question. Make your comb-honey into *nine* grades, so as to give the middleman a fair chance (at you), and then mark it so that the "uninitiated" can't "get onto" the combination; that will give the middleman nine chances at the producer, and nine more at the consumer; and if "practical use indicates the need of additional grades or sub-grades," why, give them nine more!

Now, here comes "Old Californy" to help "Missury" out. The two States have been good friends since "'49;" so we don't mind helping you again.

Now instead of that W. A. D. of capital letters to indicate the grades, let us have something deeper, that the uninitiated cannot fathom so easily. Let us do it with colored pictures. We can use the "colors of our country" (just enough for each class). Let us have a Bee rampant, for the Best Class, Red, White or Blue to indicate the grade. Then a Bee Couchant for a Middle Class, grades to be indicated by the colors. Then for the Worst Class, just an ordinary "Be Durned;" thus a *Blue* Be Durned would indicate the worst that could be expected.

If the uninitiated "get onto" these markings, why, change it next year.

Now that the grading is settled, the rest of the time until honey comes on the market again, can be devoted to convincing the world that comb-honey can be produced for 3 cents a pound, and perhaps it can be, by a certain class, that write for the bee-periodicals something like this: "I bought 2 swarms last Spring, and increased them to 6; wintered them in a trench, and they are all dead; but I am going to buy a swarm of blacks, and try it again. I am feeling first-rate this Spring."

I am willing to let "Berlin, Mo.," have this grading scheme all to himself. I am running about 200 colonies for comb-honey this season, and if my bees try to ring in any honey on me that I cannot sell in two grades, I will make them eat every drop of it, if I have to wait until next Spring to get the chance.

California.

Does Alsike Clover Pay?

M. M. BALDRIDGE.

Hon. Matt. Anderson, of Dane county, Wis., writes me under date of May 3, 1892, that for a number of years he has sown no red clover, but Alsike instead; that in 1891 he had 45 acres which he cut for seed, which gave him 189 bushels, and that he intends to save the same 45 acres for seed this year. As Alsike clover seed is worth about $9 per bushel at wholesale, this Spring, the reader can judge whether or not it pays to grow Alsike.

Mr. A, says he does not mix Alsike with red clover, or timothy, when grown expressly for seed, but for pasture he mixes timothy with it. This Spring he has sown 70 acres to Alsike, all with small grain. Owing to the severe drouth last year, Mr. A. has had to plow up nearly 50 acres sown to Alsike in the Spring of 1891.

Besides the 45 acres which Mr. A. intends to save for seed this year, he has about 60 acres, chiefly Alsike, that he will pasture. There are a number of others in Dane county, Wis., aside from Mr. A., who make the growing of Alsike clover seed almost a specialty.

I think the growers of Alsike clover seed in Dane county, Wis., make a big mistake by trying to grow Alsike by itself. I should certainly mix it with red clover—the medium variety. Red clover will furnish shade to the Alsike, and insure it against the effects of *drouth.* As red clover seed is considerably larger than the Alsike seed, it is but little trouble to separate them from each other. I can see no objection to the mixture. Can you, reader?

St. Charles, Ills., May 10, 1892.

Interesting Questions for Beginners.

F. H. RICHARDSON.

On Jan. 31, 1892, my father, Jno. Richardson, departed this life, leaving me, among other things, 61 colonies of Italian bees. I had never had the slightest experience with bees, and when I say that I had never seen a queen, or even the inside of a hive of bees, you can guess the "pickle" I was in. Among father's books, however, I found the "A B C of Bee-Culture," and I at once began to study. I do not know what I should have done without it. It is simply invaluable. The AMERICAN BEE JOURNAL was also a very great help to me.

The bees wintered on honey-dew in a bee-cellar without ventilation, and were in one section of the Heddon hive, except 10 colonies in Langstroth hives. The upper sections of the brood-chamber were filled with sawdust, and over the bees was a common wooden butter-dish, such as you get butter in at the stores, and one thickness of coarse muslin (unbleached).

The bees were weak when I took them out, but were also weak last Fall. A good many had the diarrhea, but are well now—none were dead. I took the dirty combs from them that had it badly, and substituted nice, clean ones. So far I like the Langstroth hive the best, on account of its being so hard to get the frames out of the shallow brood-chamber of the other hive. They fit so tightly endwise.

Two days after putting the bees out, I was away 24 hours, and lost 5 colonies by robbing, which nearly frightened me, but I think it cheap experience.

So far I have successfully introduced one queen by the "Peet" process, and united 4 weak colonies. Yesterday, while examining brood, I found some of the cappings in one hive cut off, and a worm ¾ of an inch long in one of the cells containing larvæ almost ready to hatch. What was it? What were those worms?

In preparing the lower section of Heddon brood-chamber to put on, I am putting one frame of honey on each side, and one frame of bee-bread on one side next to the honey, then filling up the center with empty combs, and when I put them on I thought that in strong colonies I would take a frame of brood from the upper section and put in the center. Am I doing right?

How can I tell at sight when a bee is loaded with honey? I was not able to understand how to spread the brood-nest, so I just put on empty brood-combs in the center. Is that right?

We are having a very wet Spring in Missouri. Fruit is in bloom, and bees are carrying pollen, but not much, if any, honey. Prospects are good for white clover. Here white clover and Spanish-needle furnish the principal honey crop. Will Dr. Miller please answer my questions?

Moberly, Mo., May 2, 1892.

Dr. Miller's answers to the questions asked by Mr. Richardson, are as follows:

"The worms were, I think, the ordinary wax-worm. They are often found in a cell, very much as larvæ of a honey-bee is coiled up in the cell, with very little appearance of a web about them, although generally they have a silken gallery.

"In doubling the hive room by adding an additional half-story, if the bees need honey given to them, I am not sure that it would not be just as well to put it nearer the center, so that the bees would have it more convenient, and then they could fill up the combs with brood as fast as emptied of honey, but your way answers very well. It may, or it may not be best to take a frame of brood from the old half-story to give to the new. If the bees are strong enough to cover more brood than they already have, and a frame of brood is taken from the full half-story and given to the empty one, two things will be accomplished—the bees will hasten to occupy the empty frame put in place of the full one, and they will be sure to occupy the new half-story at once, at least so far as to cover that one frame of brood. But if they were already doing their best in the way of covering brood, then you are simply making sure to have some of it deserted and chilled.

"Generally you will not find the bees very slow about going into the added half-story if they need it. Putting the added section *over* the one already occupied, will iusnre its occupation quite promptly, without the bait of a frame of brood, the only objection being that the bees are obliged to keep so much more space warm.

"The only way that I know of to tell for certain whether a bee is loaded with honey, is to pull it in two, when the contents of the honey-sac will be seen. Although this method of examination gives very conclusive results, it has the disadvantage that the future usefulness of the bee is somewhat impaired. If you are a close observer, you may see a difference in the size of bees just starting to the field, and of those just returning. But no matter how plump the returning bee, you are not sure whether it is full of honey or of water, merely by its outward appearance.—C. C. MILLER."

Convention Notices.

ILLINOIS.—The Capital Bee-Keepers' Association will meet in the Supervisor's Room of the Court House at Springfield, Ills., at 10 a. m., on May 25th, 1892. C. E. YOCOM, Sec.
Sherman, Ill.

CONVENTION DIRECTORY.

Time and place of meeting.

1892.
May 25.—Capital, at Springfield, Ills.
C. E. Yocom, Sec., Sherman, Ills.

May 28.—Haldimand, at Nelles' Corners, Ont.
E. C. Campbell, Sec., Cayuga. Ont.

Sept. 7, 8.—Nebraska, at Lincoln, Nebr.
L. D. Stilson, Sec., York, Nebr.

Oct. 7.—Utah, at Salt Lake City, Utah.
John C. Swaner, Sec., Salt Lake City, Utah.

1893.
Jan. 13, 14.—S.W.Wisconsin, at Boscobel.Wis.
Benj. E. Rice, Sec., Boscobel, Wis.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Eugene Secor..Forest City, Iowa.
SECRETARY—W. Z. Hutchinson....Flint, Mich.

National Bee-Keepers' Union.

PRESIDENT—James Heddon ..Dowagiac, Mich.
SEC'Y AND MANAGER—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Bright Prospects for Honey.

The prospects have never (for a great many seasons) been so bright as they are now for a good flow of white clover honey; and the outlook for a prosperous season for the bee-keeper is grand.

A. N. BROWN.
Glen Haven, Wis., May 12, 1892.

To the Bee-Keepers of Indiana:

It is now believed that our State is one of the foremost, if not the very best, honey-producing State in the world, both in quantity and quality; therefore, at the meeting of our State Bee-Keepers' Association it was decided to prove the justness of our claims by meeting in competition the entire world, at Chicago next year, with our product, bees, honey, implements and flowers. But, to be successful, will require union and immediate action on the part of our most careful apiarists, as the honey must be gathered within a few weeks, and from our present crop. The premiums are very liberal, and will be fairly divided among the Hoosiers who help gain them; while the high honors, which are far more valuable, we will bequeath to the children of our fair land. Our entire work is now mapped out, and we desire every county in the State represented by one or more reliable bee-keepers, to whom will be forwarded at the proper time the work assigned them, with instructions. The Presidents or Secretaries of each Fair association of our State will please forward to us at once, the address of one or more of their most energetic apiarists. We guarantee to do the rest. Nothing but prompt action at this time will insure success. R. S. RUSSELL,

Pres. Ind. State Bee-Keepers' Ass'n.
Zionsville, Ind., May 7, 1892.

Very Backward Spring.

To-day is very cold and wet. The bees are confined to their hives as they have been most of the time this Spring. My loss the past Winter and Spring has been about 70 per cent., and those that were left are in very poor condition for this time of the year. The cause of loss, I think, began about July 10, 1891; white clover failed about that time, and we got no Fall flow, consequently the bees were in poor condition for Winter. Everything is behind time here this Spring. Gooseberries are only beginning to blossom. Plum and cherry trees will bloom in a week or so, if the weather turns warm soon. Corn-planting will be two weeks late, at least.

C. B. DARROW.
Langworthy, Iowa, May 9, 1892.

Out-Door Wintering of Bees.

Score another for out-door wintering. According to the reports in the AMERICAN BEE JOURNAL for May 5, of Messrs. Judkins, Snow, Hines, Norton, and numbers of others, all cellar-wintering advocates, give their losses running from 20 up to 50 per cent. Last season was the poorest in my recollection, in this locality, with the mercury as low as 20° below zero in Winter, and poor honey to winter on, yet my loss is only 7 per cent. The bees were on the summer stands, and the loss would not have been so heavy, but I had *La Grippe* to attend to (or rather, it attended to me), so I could not wait on it and the bees at the same time. My bees are doing finely now. T. C. KELLY.

Slippery Rock, Pa., May 7, 1892.

Sour Honey and Dead Bees.

I neglected to report the condition of bees in this section last Fall, but heard nothing uncommon, so it is not particular. Bees have come out pretty well, but are spring dwindling, or dying off after they were taken from the cellar, or unpacked. There seems to be some kind of thin, watery honey that runs out of the combs where bees have died. Is it sour honey, unfit to seal over? or is it something else? Does that thin, sour-tasting stuff have anything to do with the bees dying? I put 24 colonies of bees into the cellar last Fall; some were late swarms that came out in August. I lost 2 during the Winter, and 5 more during the Spring. They all seemed to have honey. The weather is backward; fruit-trees are ready to blossom, but bees can only fly a day now and then. It is cold, wet weather generally. The Italians are the best of all the bees I have seen. I do not need a bee-veil or gloves to handle the Italians.

IRA N. LYMAN.
St. Peter, Nebr., May 3, 1892.

[In all probability the sour honey mentioned is what caused the death of the bees.—ED.]

Unfavorable Weather for Bees.

Bees have wintered poorly in this part of Michigan. The average loss will probably be 50 per cent. Two-thirds of mine have pulled through up to date, but these cold east winds are using them up, and preventing brood-rearing; but warmth is coming.

WM. ANDERSON.
Imlay City, Mich., May 10, 1892.

How the Bees Wintered.

It has been a hard Winter on bees, as near as I can find out by inquiring. Three-fourths of the bees in this county are dead. (Some have lost all.) I put 32 colonies into a cellar on Nov. 17, and by Feb. 1 they commenced to die, and I commenced to feed sugar candy, but die they would. It was so cold that I could not get them out for a flight, and they died in a filthy mess. Diarrhea was the cause, or poor honey. To-day finds me with but 9 colonies out of 32. One colony that I transferred and gave an Italian queen in September, and fed sugar syrup, wintered nicely. Give me one kind of food, and plenty of it with young bees, and it will be all right. One old lady has lost all her bees. She says she does not see what made them die; the hive was chock-full of comb. One old man lost all of his, and wants to get some more. They were in box-hives. He says his nephew had some in those new-fashioned hives, and they died! He thought they would not die in them. I gave him a bundle of bee-papers—the first he had seen. If he reads them he will learn something, even if he is 80 years old. CHARLES TAREY.

Houghton, N. Y., May 8, 1892.

No Loss in Wintering.

My bees have not had a good flight since Oct. 19, 1892, and on Nov. 16 I put 68 colonies into winter quarters. To-day I have taken them from the cellar all alive and well. This is the first good day there has been this Spring. There is no brood in any of the hives that I have opened. My bees are the strongest that they have ever been when removed from the cellar. They were all wintered in a room in the cellar 9x9 feet, and 7 feet high. I think I can "take the cake" on wintering bees.

M. F. CRAM.

West Brookfield, Vt., May 9, 1892.

Willows and Wild Flowers Blooming.

Bees wintered well. It is a cold, windy Spring—not much for the bees to get. The willows are in bloom now, and some wild flowers are coming. Raspberries and blackberries will soon be in bloom, and then the bees will be all right. S. STOUT.

Udall, Kans., May 10, 1892.

Colonies Short of Stores.

We have had a hard times for bees the past Winter and this Spring; the loss will be serious, nearly one-half. They have only had a chance to work about one day in ten, since put out of the cellar, and most colonies are short of stores. W. ADDENBROOKE.

North Prairie, Wis., May 10, 1892.

Lots of Honey Left.

I have 4 colonies of bees. They were put into the cellar late in the Fall, and I never looked at them until the beginning of April, when I look them out, and they had lots of honey left yet. They seem to do first-rate now.

H. W. BRAUER.

Stevens, Ills., May 10, 1892.

Comb-Foundation for Sections.

Which is considered best, to use starters or full sheets of foundation in sections? Bees have wintered well in this locality, but the Spring has been very cold since they left their winter quarters. W. G. WORDEN.

Guilford Centre, Vt., May 11, 1892.

[The large majority use full sheets of comb-foundation in the sections. Only thin, made especially for that purpose, should be used for comb-honey.—ED.]

Wavelets of News.

Preserving Empty Combs.

If you have a lot of empty combs on hand, and wish to preserve them for future use, they will have to be looked after carefully when warm weather approaches, else the moths will destroy them. After the combs get thoroughly dry, the best place to keep them is in a cool, dry cellar—so cool that the eggs of the moth will not hatch, and so dry that the mold will not ruin them. If it is not practical to preserve them thus, they may be saved almost anywhere by hanging the combs about an inch apart.

Combs are seldom destroyed by worms unless they are close enough together to allow the moth to build their web between. As combs hang naturally in a hive, they are too close to save well without bees on them.

Spiders are friends to the bee-keeper, if he has empty combs to preserve. Let them build their web between the combs and worms will never be seen. Perhaps it will pay for bee-keepers to start a spider farm. They are useful animals. —EUGENE SECOR, in the *Farmer and Breeder.*

Queenless Colonies.

Such need not be lost, nor united to other colonies. Another queen should be procured as soon as possible from some reliable dealer.

This will not be a paying operation, however, if the colony has become very much depopulated, as in that case there would not be enough bees to nurse and protect the bees.

Before the queen is introduced, the combs should be carefully examined to see if there is not an old queen, or a virgin queen which might have been reared after the laying or missing queen had either died or been superseded.

If the bees have long been queenless, the fact may be determined by the manner in which the brood in the combs is capped. When a colony has been without a queen six weeks, there is usually more or less scattering brood in the cells. This brood is capped the same as any drone larvæ (raised caps), but is in the same cells in which the worker-bees are reared. This brood is the work of laying workers. In my opinion nearly every bee in the hive has a hand in laying these eggs, and not one particular bee.

If there is a large number of bees in the hive, it is safe in most cases to give them a queen, and at the same time take a frame of brood from some strong colony and place it in the brood-nest. The bees in the queenless colony are probably too old to nurse the new brood, and the newly-hatched bees will be needed to do such work. In all such cases of introduction of queens, use tobacco smoke.—*American Apiculturist.*

Seasonable Hints.

If you have not yet ordered all the things you will be sure to need, do so without further delay. It will not do to wait until the swarming season is on hand, and then order hives, sections, etc., and expect them by return train.

Boom the bees in every possible way now, by feeding, etc., so that the first of June will find the hives literally "running over" with bees. Never mind honey just yet, but get the bees, and let them "do the rest."

It is of no use to put on a lot of honey sections over the brood-chamber to conduct the heat away as soon as fruit blossoms, as it will only result in loss to the bees, and no gain in surplus honey. Before giving extra room on top, be sure that the brood-frames are all occupied.

After all, about the best way to get the wax out of old combs, is to mash them up in cold weather, soak them a day or two, and then boil the mass with plenty of water. To separate the wax from refuse, scoop all into a strong burlap sack and press out all the wax possible. Repeat the pressing as long as any wax remains. The refuse will be good kindling when dry, to start the fire with.—C. H. DIBBERN, in *Western Plowman.*

Supply Dealers should write to us for wholesale terms and cut for Hastings' Perfection Feeders.

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Advertisements **intended for next week must reach this office by Saturday of this week.**

ALFRED H. NEWMAN,
BUSINESS MANAGER.

Special Notices.

☞ Send us *one new* subscription, with $1.00, and we will present you with a nice Pocket Dictionary.

☞ The date on the wrapper-label of this paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to pay for another year.

☞ Systematic work in the Apiary will pay. Use the Apiary Register. It costs:

For 50 colonies (120 pages)	$1 00
" 100 colonies (220 pages)	1 25
" 200 colonies (420 pages)	1 50

☞ As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.

To my Patrons:

I do not know that I have a dissatisfied customer, yet as a good many orders for queens were received through an order in this paper, I desire to say that I will be ready on and after June 1, 1892, to make good all claims for queens on unfilled orders, and for those queens that did not come up to my guarantee. No queens mailed until the claimant notifies me of his readiness to receive her. This notice is given so that no one will have reason to make complaint of me in the Fall, after the queen-rearing season has passed.

HENRY ALLEY.

Wenham, Mass.

In the May number of the "Phrenological Journal and Science of Health," a gentleman who has distinguished English journalism, gives striking testimony for the usefulness of Phrenology. It is Mr. Wm. T. Stead, whose portrait stands in the opening page. Some views of Persia, from the sketch book of a lady traveler follow. The editorial matter is suggestive and varied, as usual. Fifteen cents a number, or $1.50 a year. Fowler & Wells Co., 25 East Twenty-first Street, New York.

Well Pleased.

The extractor and smoker that you sent me are very fine machines, and I am very well pleased with them.

I. G. OLSSON.

St. Paul, Minn.

Our Sewing Machine.

I have received your premium sewing machine, and am well pleased with it. My wife says that it does as good work as a machine that would cost $35 or $40 here. I would advise any one wanting a sewing machine to get one, because it is as good as any.

Lisbon, Tex. J. D. GIVENS.

Near to Perfection.

I must have a binder for the BEE JOURNAL this year, for I think that you have now got it to as near perfection as anything can be on earth.

Naugatuck, Conn. R. DOWNS.

YOU NEED an Apiary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for $1.25; or for 200 colonies for $1.50. *Order one now.*

Supply Dealers desiring to sell our book, "Bees and Honey," should write for terms.

We Club the American Bee Journal and the Illustrated Home Journal, one year for $1.35. Both of these and Gleanings in Bee Culture, for one year for $2.15.

If You Have any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time.

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

When talking about Bees to your friend or neighbor, you will oblige us by commending the BEE JOURNAL to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the Convention Hand-Book by mail, postpaid. It sells at 50 cents.

HONEY AND BEESWAX MARKET.

CHICAGO, May 14.—Fancy comb honey is selling at 16c.; choice, 14@15c. Other grades 10@13c. Extracted, scarce, good demand, at 7@7½c. Beeswax, active sale, 28c.
S. T. FISH & CO., 189 S. Water St.

NEW YORK, May 14.—No demand for comb honey excepting fancy white. Quite a stock on the market of off grades and buckwheat. New Southern extracted arriving and sells at from 70@75c. per gallon for choice; 65@70c. for common. Beeswax quiet but firm at 27@29
HILDRETH BROS. & SEGELKEN,
28-30 West Broadway.

KANSAS CITY, Mo., May 14—Demand light, supply large. Prices: No. 1 white comb, 13@14c.: No. 2 white, 10@12c. Extracted, white, 6@7c.; amber, 6@6½c.; dark, 5c. Beeswax—Demand good, supply light. Price, 22@27c.
CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI, May 14—Demand is slow for comb with good supply. Price, 12@15c. Demand for extracted is fair at 5@8c.

Beeswax is in good demand, at 25@27c for good to choice yellow.
C. F. MUTH & SON,
Cor. Freeman & Central Aves.

NEW YORK, May 14—Demand for honey is very moderate, supply good, exceeding the demand. There is little demand for fancy 1-lbs. Market pretty well cleaned up of that grade, but plenty of fair. Prices: Comb, clover, 8@12c.; buckwheat, 7@9c. Extracted, clover, 6½@7c.; buckwheat, 5½@6c. Beeswax—Demand fair, supply plenty for demand, at 27@29
CHAS. ISRAEL & BROS., 110 Hudson St.

KANSAS CITY, Mo., May 14—Demand poor, supply light of comb. Fancy 1-lbs., 12@13c.; dark, 8@9c. Extracted, white, 7c.; dark, 5@6 No beeswax on the market.
HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, May 14 — The demand is slow, and supply fair, and will be absorbed by time new crop comes. Comb, 11@12½c. Extracted, 7@8c. Beeswax—Demand moderate, supply fair; price, 27@28c.
M. H. HUNT, Bell Branch, Mich.

CHICAGO, May 14.—Demand fair and supply short on fancy stock. Comb, 14@15c. Extracted, slow sale at 6@7c. Beeswax—Demand good, supply short on prime yellow; price, 25@28c.
J. A. LAMON, 44-46 S. Water St.

MILWAUKEE, May 14—Demand very moderate, supply average of all grades but common quality. Best 1-lbs. 15@16c; common, 12@13c. Extracted, white, in barrels, 7c.; in kegs, 7½c; in pails, 7½@8c. Beeswax—demand fair, supply small. Price, 23@28c.
A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO, May 14.—Demand light, supply light. Comb, 10@12c. Extracted, 5@6¼c. Beeswax — Demand fair, supply light. Price, 25@27c. A fair to good honey crop for 1892 is expected.
SCHACHT, LEMCKE & STEINER,
16 Drumm Street.

NEW YORK, May 14—Demand is light, and supply large, except buckwheat comb. We quote: Fancy white comb, 12@14c; buckwheat, 9@11c. Extracted—Clover and basswood in good demand at 6½@7c; buckwheat in demand at 5@6c. Beeswax in fair demand at 26@28c.
F. I. SAGE & SON, 183 Reade St.

CHICAGO, May 14. — Demand is slow, supply fair, but not excessive, and market should clean up. Prices: Comb, 15c. is about the top. Extracted, 6, 7@8c.; supply small. Beeswax —Demand good, supply better than last season. Price, 27c. for yellow.
R. A. BURNETT, 161 S. Water St.

BOSTON, May 14.—Demand is light, supply fair. We quote: 1-℔. fancy white comb, 13@15c; extracted, 6@7c. Beeswax—Demand fair, supply light. Price, 28c.
BLAKE & RIPLEY, 57 Chatham St.

MINNEAPOLIS, MINN., May 14—Demand is moderate, supply of dark is large, but white is not so plentiful. Prices: Dark comb, 10@13c.; white, 15@17c. Extracted, supply plenty. Beeswax—Demand good, supply small.
STEWART & ELLIOTT.

ALBANY, N. Y., May 14.—Demand is very little for comb at 8@12c. Market quiet. Extracted, 6@7c. Beeswax in good demand at 28@30c. for good stock.
H. R. WRIGHT, 326-328 Broadway.

NEW YORK, May 14.— Demand moderate, and supply reduced, with no more glassed 1-℔ nor paper cartons, 1-℔. We quote: Comb, 1-℔, 14@15c. Extracted—Basswood, 7¼@7½c; buckwheat, 5½@6¼; Mangrove, 68@75c per gal. Good demand for dark extracted honey. Beeswax, in fair supply, with small demand, at 26@27c.
F. G. STROHMEYER & CO., 120 Pearl St.

The Convention Hand-Book is very convenient at Bee-Conventions. It contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with Subjects for Discussion. In addition to this, there are about 50 blank pages, to make notes upon, or to write out questions, as they may come to mind. They are nicely bound in cloth, and are of the right size for the pocket. We will present a copy for one new subscription to the BEE JOURNAL (with $1.00 to pay for the same), or 2 subscribers to the HOME JOURNAL may be sent instead of one for the BEE JOURNAL.

◆

Prompt Shipment.

I have received the sections and foundation all right. Thanks for your promptness. The freight on the sections was only 75 cents.

Riverton, Ills. C. V. MANN.

◆

Busy Bees, and How to Manage Them, by W. S. Pouder. Price 10 cents. For sale at this office.

◆

If You Want Hives, read advertisement of Dr. Mandeville, on page 683.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club.*
The American Bee Journal	$1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	2 00	1 75
The Apiculturist	1 75	1 65
Canadian Bee Journal	2 00	1 75
American Bee-Keeper	1 50	1 40
The **7** above-named papers	5 75	5 00
and Langstroth Revised (Dadant)	2 40	2 25
Cook's Manual (1887 edition)	2 25	2 00
Quinby's New Bee-Keeping	2 50	2 25
Doolittle on Queen-Rearing	2 00	1 75
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 50	1 40
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 50	1 35
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
Toronto Globe (weekly)	2 00	1 70
History of National Society	1 50	1 25
American Poultry Journal	2 25	1 50
The Lever (Temperance)	2 00	1 75
Orange Judd Farmer	2 00	1 75
Farm, Field and Stockman	2 00	1 75
Prairie Farmer	2 00	1 75
Illustrated Home Journal	1 50	1 35
American Garden	2 50	2 00
Rural New Yorker	3 00	2 25
Nebraska Bee-Keeper	1 50	1 35

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

◆

Winter Problem in bee-keeping; by G. R. Pierce, of Iowa, who has had 25 years' experience in bee-keeping, and for the past 5 years has devoted all his time and energies to the pursuit. Price, 50 cents. For sale at this office.

◆

A Nice Pocket Dictionary will be given as a premium for only **one new** subscriber to this JOURNAL, with $1.00. It is a splendid little Dictionary—just right for the pocket. Price, **25 cents.**

◆

The Honey-Bee; Its Natural History, Anatomy and Physiology. By T. W. Cowan, editor of the *British Bee Journal*, 72 figures, and 136 illustrations. $1.00. For sale at this office.

Our Book—Bees and Honey.

A new (the eighth) edition of the well-known work, "Bees and Honey, or the Management of an Apiary for Pleasure and Profit," thoroughly revised and largely re-written, is sent to us by Thos. G. Newman, the author, Chicago. It is a duodecimo volume of 250 pages, adorned with a great number of illustrations (including portraits of all the chief students of the bee, living and dead), and neatly bound in cloth. The price is $1.—*Country Gentleman.*

Prompt and Reliable.

I received the goods in good order five days after they were ordered of Thomas G. Newman & Son. Many thanks for such prompt shipment. They will receive my future patronage.

E. W. EMERSON.
Clear Lake, Wis., May 10, 1892.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

WANTED—A practical Apiarist. State experience, and wages desired.
J. B. SUMMERS, Berthoud, Larimer Co., Colo.

FOR SALE CHEAP OR EXCHANGE for Bees, 1000 nice Brood-Combs.
Address, EMMA SEALS,
19A3t Dixon, Lee Co., Ill.

WANTED—The reader of this to send One Dollar for my new Smoker—the "Boss." The best, handsomest and most durable Smoker made. W. C. R. KEMP, Orleans, Ind.
18A5t

FOR SALE—Thoroughbred Light Brahma and Black Minorcan Fowls. Eggs $1.25 per 13. Circular free. ALBERT LIND,
20A3t Calumet Harbor, Wis.

WANTED—Five Hundred Apiarists to try my PURE ITALIAN QUEENS at one dollar each. Now ready. Satisfaction guaranteed.
H. M. STEPHENS,
21A4t Munden, Republic Co., Kan.

FOR SALE—100 closed-end, standing-frame, double-wall Hives, new, nailed up, painted. Set of sections & cases included. $3.00 each. A great bargain. Order at once. One Novice Honey-Extractor. Send stamp for particulars.
S. A. FISHER, 21 Pemberton Square,
15D4t Boston, Mass.

BEE-KEEPERS, combine Pure-Bred Poultry in connection with Bees—you will have something sure then, in a poor year for honey. I will send 15 Pure B. P. Rock Eggs for $1.00; 26 for $1.50. First Premium at Barry County Fair, 1891, on Breeding Pen. Address,
MRS. PARKER ERWAY,
20A3t Hastings, Mich.

THE AMERICAN BEE JOURNAL
CIRCULATES
ALL OVER THE WORLD
PUBLISHED BY
THOS. G. NEWMAN & SON,
CHICAGO, ILL.

ONE DOLLAR PER YEAR.

Club Rates.—Two copies, **$1.80** ; 3 copies, **$2.50** ; 4 copies, **$3.20** ; 5 copies, **$3.75.** Mailed to any addresses.

THOMAS G. NEWMAN, EDITOR.
GEO. W. YORK, ASSISTANT EDITOR.

Vol. XXIX. May 26, 1892. No. 22.

Editorial Buzzings.

A Bird sang sweet and strong,
In the top of the highest tree ;
He said : "I pour out my heart in song
For the Summer that soon shall be."

But deep in the shady wood,
Another bird sang : "I pour
My heart on the solemn solitude,
For the Springs that return no more."

◆

A Good Remedy for bee-stings is to cut an onion in two and apply the cut surface to the wound.

◆

The Weather of late has been very wet. Continual showers have been "the order of the day," and also the night. The low land nearly all over the country is under water. It seems now almost an impossibility for there to be any drouth this year—the ground is so heavily charged with moisture, and the bloom must be abundant, even if it is long delayed.

A Fire, on May 13, destroyed the printing office and bindery where the BEE JOURNAL had been printed and bound during the past 15 years. Our last issue came out on time, however, through the kindness of the Woman's Christian Temperance Union. The next day after the fire, their largest press was placed at our disposal, and hence we were able to visit our readers at the usual hour, just as though nothing had happened. The loss is fully covered by insurance, as all such losses should be.

◆

It is Somewhat Difficult to say just when or where to begin to prepare honey for market—perhaps the best time would be before we have any. To be able to have the choicest comb-honey, it must be built in nice, white sections. Another article of importance is nice, thin foundation. With this fastened in the sections, they have a neat appearance.—*Exchange.*

◆

Dr. A. B. Mason was in Chicago last week, and in company with the editor of the AMERICAN BEE JOURNAL, held a conference with Mr. Buchanan, Chief of the Agricultural Department of the World's Fair, with reference to the Apiarian Exhibit. Our readers may expect something definite about the arrangements, in our next issue.

◆

Chilian Honey is dark in color, and inferior in quality. A correspondent writes that he has seen in one day 500 barrels of honey shipped from one Chilian port. He says that most of the honey produced in that South American country comes from the Desert of Atacama, which is a wonderful honey-producing locality.

◆

Not Securing the hives, sections, foundation and other supplies in season is a mistake made year after year by many bee-keepers.

The Wiley Lie has assumed a new phase. This time it comes by way of the printing office of "the United States Department of Agriculture, Division of Chemistry, Bulletin No. 13."

It is a pamphlet of 250 pages, on "Foods and Food Adulterants," and purports to be the reports of investigations made under direction of H. W. Wiley, Chief Chemist, by assistants in different parts of the country.

The whole thing is an ingenious method invented (apparently at least) to injure the pursuit of bee-culture, and pay off the AMERICAN BEE JOURNAL for the righteous war waged upon the Professor, which finally wrung from him the apologetic letter to counteract the influence of the so-called "scientific pleasantry," eight years after he had perpetrated that *huge joke* upon the world!

The pamphlet is full of blunders, misstatements, misrepresentations, and ill-concealed spite.

He persists in calling comb-foundation "artificial comb," and gives a list of "manufacturers of comb," in which he enumerates: T. G. Newman, Chicago, Ills., though that person never manufactured an ounce of "comb" in his life, nor even comb-foundation, which, of course, the wily Professor would have us believe that he was writing about! But if he meant "comb-foundation," why does he omit any mention of such large manufacturers as A. I. Root, J. Van Deusen & Sons, and many others? Simply because he tries to mislead and vent his spite upon those who have dared to defend the pursuit against his "scientific pleasantries" and his oft-repeated misrepresentations!

On page 740 of the pamphlet, the wily Professor remarks as follows:

> Perhaps there is no other article of food which has been so generally adulterated in the United States, during the last 20 years, as honey. The ease with which sophistication could be practiced, the cheapness of the material used, and the high price of the genuine product have presented temptations which the manufacturer, producer, and dealer have not been able to withstand.
>
> As long as honey was sold wholly in the comb, the difficulties in the way of successful sophistication were so great as to practically preclude its practice. The popular impression to the effect that comb-honey is adulterated was probably produced rather by ingenious attempts to manufacture the spurious article than by the commercial success of the enterprise. Artificial comb-honey has been regarded as a possible article of commerce by many scientific men.

The last sentence is worthy of the man who invented the story about "artificial comb being made by machinery, filled with glucose, and capped by a hot iron!"

But hold! He admitted that it was a falsehood, and suffered a "retraction" to be published; and he must now invent a new way to injure honey-producers. So the book is published, and allowed to be copied into thousands of newspapers, with this re-vamped "Wiley lie"—that "artificial comb" IS "a possible article of commerce!" Then, a week afterwards, comes a little slip of paper by mail, containing five lines of corrections, one of which is to insert "not" after "artificial comb-honey has," etc. That slow correction, he well knows, will NEVER overtake the false assertion in the official document itself!!

The Professor then takes another tack. He says:

> Although not a matter of national legislation the standard of pure honey is not hard to fix. By universal consent it may be stated that a pure honey is the nectar of flowers and other saccharine exudations of plants, gathered by bees, and stored in cells built at least in part by the bees themselves.
>
> Honey made by feeding bees glucose, sugar, invert-sugar, or other saccharine substances, is not pure honey. Nor is that pure honey which is made by adding to an empty or partially filled honey-comb glucose, or any other saccharine substance.

Just as we have before intimated; the unfortunate blunder of publishing the Hasty Sugar Honey article, last Winter, has been seized upon to give color to the Professor's charge, and make his blows the more severe. Of course, we well know that "sugar is not honey," and have often so stated it in the BEE JOURNAL. It was a sad blunder to have unthinkingly given into the hands of our enemies the hammer with which to strike this terrible blow!

One of our valued exchanges copied the above extracts, and then added:

> Fifty samples of honey collected in Ohio, for which 20 cents per pound—the price of pure honey--was paid, and 20 were adulterated with glucose costing 3 cents per pound. Two samples had been adulterated with cane sugar or syrup.
>
> The labels on the samples, most of which are transcribed, are very enticing, "Golden-Rod Honey," "XX White Clover Honey," "Pure Old Virginia Honey," "Strictly Pure Extracted Honey," figure conspicuously.
>
> "Pure Machine Extracted-Honey," labeled from the apiary of C. F. Muth, also "Muth's California Honey," is classed by the chemist as almost pure glucose.

No, sir. *It is false!* Brother Muth never mixed an ounce of glucose, or any other adulterant with honey! *Never!* Every one acquainted with the man knows that it is beneath him to do so! Honesty is stamped upon his every action—every word—every thought!

Brother Muth's crime is that, like an honest man, he has fought adulteration, and therefore an attempt must be made to destroy his influence—he must be branded as an adulterator!

The same thing has been done about the editor of the AMERICAN BEE JOURNAL. Men, when cornered in their stories about manufactured comb-honey, have several times asserted that they had seen its editor actually make combs by machinery, fill them with glucose, and cap the cells with hot irons.

These falsehoods have been repeated over and over again, until some people actually try to make themselves believe them, even though there is not a word of truth in them. But why multiply words on this subject?

We close by saying that the purity of honey cannot be absolutely determined by analysis. The difference in atmosphere and soil makes it impossible to invariably decide whether it is adulterated or not. This very thing has given the wily Professor a chance to stab us in the dark, but he brings down upon himself and his associates the execration of the apiarists of the world.

This report has cost the United States Government thousands of dollars, and it is not only utterly worthless, but it is a waste of money, and is a disgrace to the Nation as well!

◆

Bees and Fruit.—The following item shows the value of bees to fruit-growers:

> A fruit-grower in England established an extensive greenhouse, and stocked it with choice native and exotic fruit trees. He expected in due time that he would have an abundance of fruit. Seasons passed, but no fruit. There were plenty of blossoms on each tree, but no fruit. A great many different plans were employed to bring the trees to bearing, but they were all unsuccessful. Finally a friend suggested to him to place a colony of bees in his greenhouse to fertilize the blossoms. The next season there was an abundance of fruit. The bees had distributed the pollen from flower to flower, and thus fertilized the blossoms. In the large greenhouses at Arlington, N. J., where they raise early cucumbers, they have bees to fertilize the blossoms.

◆

Gloves used about the apiary, becoming dirty or covered with propolis, can be easily cleaned by soaking a day or two in strong lye made from potash or wood ashes, or by soaking in water saturated with quick-lime. The propolis comes off without difficulty after such a soaking.

◆

An Apiary in Windsor, Colo., last season produced four tons of alfalfa honey of excellent quality. Alfalfa is the best honey-producer in that region of country.

Queries and Replies.

Mating of Italian Queens.

QUERY 820.—Out of a good lot of young Italian queens, but two mated with black drones, and that when all the bees in my neighborhood are blacks (about 50 colonies in from ½ to one mile from my yard) except my bees, which are Italians except one colony. 1. Why did so large a per cent. of my queens mate with the drones in my own yard? 2. May I expect the same result next year?—North Carolina.

Ask something easier.—C. C. MILLER.

I do not know anything about this.—P. H. ELWOOD.

1. I think this is a mistake. 2. No.—G. M. DOOLITTLE.

1. I do not know. 2. It is very doubtful.—E. FRANCE.

1. That is just about the proportion I should expect to find purely mated. 2. Yes.—C. H. DIBBERN.

1. There was a preponderance of drones from your yard in the air, hence the result. 2. I don't know.—J. M. HAMBAUGH.

Your young queens may not be as purely mated as you suppose. You can expect almost anything with bees.—H. D. CUTTING.

1. Because you had drones in abundance at home. 2. If circumstances are the same you may expect about the same results.—MRS. JENNIE ATCHLEY.

I judge you had more numerous and more vigorous drones in your apiary. I think it an unusual experience, and shall be surprised if it is repeated.—A. J. COOK.

In all probability, at the time your young Italian queens were ready to mate, there was a paucity of black drones, which might not be the case at another season.—J. P. H. BROWN.

How many is "a good lot?" I think your experience is unusual. There might be good reasons for it, but no one could give them without knowing all the circumstances.—JAMES A. GREEN.

1. For a guess, I will say because the Italian drones were more plentiful than blacks, at the time of mating. 2. Possibly you may, and then again just the reverse may happen.—J. E. POND.

1. I cannot account for such an unusual mating, unless your drones and queens were earlier developing than those of all your neighbors. 2. No; I would not expect such results again.—JAMES HEDDON.

1. If you have one colony of black bees in your yard, the probabilities are that your two mismated queens met drones from this colony, and your queens, no doubt, were all mated with drones from your own yard. 2. Practically the same.—MRS. J. N. HEATER.

1. I merely suggest that this favorable result might have been caused by windy weather that prevented the queens flying far from home. 2. If the above theory be correct, you can hardly hope for equal success two years in succession.—EUGENE SECOR.

There is little danger of bees mixing at a distance of one-half mile, if there are plenty of drones in your own yard, and none at all at one mile. If you wish to rear Italian queens, you had better get rid of that black colony.—MRS. L. HARRISON.

1. "I don't know." 2. Yes, if you want to. It won't be "treading on any one's toes" to expect it, and it may help to keep you out of mischief; but with my hopeful disposition, *I* would not spend much time expecting such a result, if I had anything else to do.—A. B. MASON.

1. I *guess* that more than two of your Italian queens mated with black drones. Bees resemble the queen much more than the drone, and an expert is liable to be deceived as to the purity of Italian bees. 2. If you breed from the young queens, I think you will find a stronger infusion of "black blood."—M. MAHIN.

Probably because at the time your young queens mated, the weather may not have been favorable for the black drones in your vicinity to make long flights of one-half mile. Cloudy days and windy are not favorable for drones to fly far from their hives. Next year may bring the opposite result.—G. L. TINKER.

How do you know that only two mated with black drones? You cannot tell by the color of the workers. The first two Italian queens I ever saw were two I ordered sent to me, and there were no others in this section. Before there was time for drones to be hatched from them, I reared a lot of queens from them, about half of which produced fine yellow three-banded, uniformly-marked workers, and one queen produced four-banded bees.—R. L. TAYLOR.

Your experience does not surprise me. Young queens do not prowl all over the country in search of a mate when plenty of drones are to be met with in the immediate vicinity of their home. When drones are few and far between, I have seen evidence of longer flight on the part of queens. 1. Because you had plenty of drones at home, and the queens were not mated in the immediate vicinity of their homes. 2. You cannot expect the same results in a matter of this kind.—G. W. DEMAREE.

1. It is all chance work to a certain extent, and controlled by the circumstances surrounding the apiary. The drones at home were numerous, full of vigor, and on the alert, letting no young and innocent queen escape their notice. High winds may have interfered with the flying of the royal ladies, or they may have developed earlier than the black drones. 2. As to the results another year, do not expect or anticipate anything—then you will not be disappointed.—THE EDITOR.

In His Annual Report of the Colorado experiment station, Prof. C. Max Brose writes as follows: “The successful wintering of bees is of the greatest importance to the bee-keeper. On it depends his success or failure for the following Summer; and in order that every colony may be strong in the Spring, eager to start the Summer campaign of gathering stores for themselves and their owner, the following points are of greatest importance to the apiarist: The colonies should go into winter quarters with plenty of young bees—at least four frames should be covered with them—and 35 pounds of sealed honey. They should be kept at an even temperature—45° to 50°—and never be unnecessarily disturbed. The hive should be in such a condition as to absorb all the moisture generated by the bees during the Winter.”

Bee-Keepers' Associations.

The following is a corrected list of the associations for bee-keepers in the United States, which was published in the AMERICAN BEE JOURNAL for June 25, 1891. It may yet be incomplete, and if any of our readers can inform us as to further needed corrections, we shall appreciate it, as we desire to have the list as nearly right as possible.

North American Bee-Keepers' Association, Eugene Secor, President. W. Z. Hutchinson, Secretary, Flint, Mich.

Agency Bee-Keepers' Association, T. S. Smith, Secretary, Agency, Mo.

Alabama State Bee-Keepers' Association, J. M. Jenkins, Secretary, Wetumpka, Ala.

Bee and Poultry-Keepers' Association, Ora Knowlton, Sec'y, New Brunswick, Ind.

Boone and Hendricks Counties Bee-Keepers' Association, John Ridgway, Secretary, Brownsburg, Ind.

Brant Bee-Keepers' Association, D. Anguish, Secretary, Brantford, Ont.

Brookfield Bee-Keepers' Association, Jos. G. Banning, Secretary, Brookfield, Mo.

Bruce Bee Keepers' Association, A. Tolton, Secretary, ———, Ontario.

California State Bee-Keepers' Association, John H. Martin, Secretary, Riverside, Calif.

Capital Bee-Keepers' Association, C. E. Yocom, Secretary, Sherman, Ills.

Carolina Bee-Keepers' Association, N. P. Lyles, Secretary, Derita, N. C.

Cedar Valley Bee-Keepers' Association, J. J. Owens, Secretary, Waterloo, Iowa.

Central Iowa Bee-Keepers' Association, A. J. Adkinson, Secretary, Winterset, Iowa.

Central Michigan Bee-Keepers' Association, W. A. Barnes, Secretary, Lansing, Mich.

Colorado State Bee-Keepers' Association, H. Knight, Secretary, Littleton, Colo.

Cortland Union Bee-Keepers' Association, C. W. Wilkins, Secretary, Homer, N. Y

Darke County Union Bee-Keepers' Association, J. A. Roe, Secretary, Union City, Ind.

Des Moines County Bee-Keepers' Association, John Nau, Secretary, Middletown, Iowa.

Eastern Indiana Bee-Keepers' Association, M. G. Reynolds, Secretary, Williamsburg, Ind.

Eastern Iowa Bee-Keepers' Association, Frank Coverdale, Secretary, Welton, Iowa.

Eastern Iowa and Western Illinois Bee-Keepers' Association, H. S. Dibbern, Secretary, Milan, Ills.

Eastern New York Bee-Keepers' Association, W. S. Ward, Secretary, Fuller's Station, N. Y.

Erie County Bee-Keepers' Association, R. Meatyard, Secretary, Protection, N.Y.

Eureka Springs Bee-Keepers' Association, Dr. S. S. Purcell, Secretary, Eureka Springs, Ark.

Fremont Progressive Bee-Keepers' Association, G. E. Hilton, Sec'y, Fremont, Mich.

Grand Traverse, Mich., Bee-Keepers' Association, Mrs. Geo. E. Steele, Secretary, Grand Traverse, Mich.

Haldimand Bee-Keepers' Association, E. C. Campbell, Secretary, Cayuga, Ont.

Hamilton County Bee-Keepers' Association, Geo. C. Thompson, Secretary, Southport, Ind.

Hancock County Bee-Keepers' Association, S. H. Bolton, Secretary, Stanley, O.

Hardin County Bee-Keepers' Association, J. W. Buchanan, Secretary, Eldorado, Iowa.

Hill County Bee-Keepers' Association, H. A. Goodrich, Secretary, Massey, Tex.

Huron, Tuscola, and Sanilac Counties Bee-Keepers' Association, John G. Kundinger, Secretary, Kilmanagh, Mich.

Illinois State Bee-Keepers' Association, Jas. A. Stone, Secretary, Bradfordton, Ills.

Indiana State Bee-Keepers' Association, J. P. Wilson, Secretary, Toll Gate, Ind.

Ionia Bee-Keepers' Association, Harmon Smith, Secretary, Ionia, Mich.

Iowa State Bee-Keepers' Association, Thos. Chantry, Secretary, Casey, Iowa.

Johnson County Bee-Keepers' Association, L. R. Jackson, Sec'y, Urmeyville, Ind.

Kansas State Bee-Keepers' Association, J. B. Kline, Secretary, Topeka, Kans.

Kentucky State Bee-Keepers' Association, T. Connley, Secretary, Napoleon, Ky.

Keystone Bee-Keepers' Association, A. A. Davis, Secretary, Clark's Green, Pa.

Linwood Bee-Keepers' Association, B. J. Thompson, Secretary, Waverly, Wis.

Madison County, N. Y., Bee-Keepers' Association, W. V. Bosworth, Jr., Secretary, Clockville, N. Y.

Mahoning Valley Bee-Keepers' Association, E. W. Turner, Sec'y, Newton Falls, O.

Manitoba Bee-Keepers' Association, J. Hammond, Secretary, Winnepeg, Manitoba.

Maine Bee-Keepers' Association, J. F. Fuller, Secretary, Oxford, Me.

Maine State Bee-Keepers' Association, Wm. Hoyt, Secretary, Ripley, Me.

Maricopa County Bee-Keepers' Association, J. A. R. Irvine, Secretary, Phœnix, Arizona.

Marion County Bee-Keepers' Association, Dr. H. J. Scoles, President, Knoxville, Iowa.

Marshall County Bee-Keepers' Association, J. W. Sanders, Sec'y, Le Grand, Iowa.

Maryland, Virginia and West Virginia Bee-Keepers' Association, D. A. Pike, President, Smithsburg, Md.

Michigan State Bee-Keepers' Association, G. E. Hilton, Secretary, Fremont, Mich.

Minnesota State Bee-Keepers' Association, C. Theilmann, Secretary, Theilmanton, Minn.

Missouri State Bee-Keepers' Association, J. W. Rouse, Secretary, Mexico, Mo.

Nashau Bee-Keepers' Association, H. L. Rouse, Secretary, Ionia, Iowa.

Nebraska State Bee-Keepers' Association, J. N. Heater, Secretary, Columbus, Nebr.

Nemaha County Bee-Keepers' Association, R. Corgell, Secretary, Brock, Nebr.

Newaygo County Farmers and Bee-Keepers' Association, Geo. E. Hilton, Secretary, Fremont, Mich.

New Jersey and Eastern Bee-Keepers' Association, W. B. Treadwell, Secretary, 16 Thomas St., New York City.

New York State Bee-Keepers' Association, Geo. H. Knickerbocker, Secretary, Pine Plains, N. Y.

North Carolina State Bee-Keepers' Association, A. L. Beach, Sec'y, Pineville, N. C.

Northeastern Bee-Keepers' Association, Geo. W. House, Secretary, Syracuse, N. Y.

Northeastern Kansas Bee-Keepers' Association, L. C. Clark, Sec'y, Hiawatha, Kans.

Northeastern Kentucky Bee-Keepers' Association, Alex. W. Stith, Secretary, Portland, Ky.

Northeastern Michigan Bee-Keepers' Association, W. Z. Hutchinson, Secretary, Flint, Mich.

Northeastern Ohio, Northwestern Pennsylvania and Western New York Bee-Keepers' Association, Geo. Spitler, Secretary, Mosiertown, Pa.

Northern Illinois Bee-Keepers' Association. Chas. Winn, Secretary, P. O. Box 1854, Rockford, Ills.

Northern Indiana and Southern Michigan Bee-Keepers' Association, F. L. Putt, Secretary, Goshen, Ind.

Northern Michigan Bee-Keepers' Association, F. A. Palmer, Secretary, McBride, Mich.

Northern Ohio Bee-Keepers' Asssociation, H. R. Boardman, Secretary, East Townsend, Ohio.

Northwestern Bee-Keepers' Society, at Chicago, W. Z. Hutchinson, Secretary, Flint, Mich.

Northwestern Indiana Bee-Keepers' Association, A. Fahnestock, Secretary, La Porte, Ind.

Ohio State Bee-Keepers' Association, S. R. Morris, Secretary, Bloomingsburgh, O.

Oneida and Madison County, N. Y., Bee-Keepers' Association, C. W. Perry, Secretary, New London, N. Y.

Ontario Bee-Keepers' Association, W. Couse, Secretary, Streetsville, Ont.

Ontario County, N. Y., Bee-Keepers' Association, Miss R. E. Taylor, Secretary, Bellona, N. Y.

Pan-Handle Bee-Keepers' Association, W. L. Kinsey, Secretary, Blaine, O.

Patsalaga Bee-Keepers' Society, M. G. Rushton, Secretary, Raif Branch, Ala.

Philadelphia Bee-Keepers' Association, F. Hahman, Jr., Secretary, Philadelphia, Pa.

Portage County Bee-Keepers' Association, L. G. Reed, Secretary, Kent, O.

Progressive Bee-Keepers' Association, Miss Dema Bennett, Secretary, Bedford, O.

Progressive Bee-Keepers' Association, J. G. Norton, Macomb, Ills.

Province of Quebec Bee-Keepers' Association, S. B. La Montague, Secretary, Montreal, Can.

Rhode Island Bee-Keepers' Society, G. A. Stockwell, Secretary, Providence, R. I.

Rock River Bee-Keepers' Association, J. M. Burtch, Secretary, Morrison, Ills.

Saint Joseph Inter-State Bee-Keepers' Association, E. T. Abbott, Secretary, St. Joseph, Mo.

Seneca County Bee-Keepers' Association, I. Wilson, Secretary, Ovid, N. Y.

Shenandoah Valley Bee-Keepers' Association, Joseph E. Shaver, Secretary, Friedens, Va.

Sheboygan County Bee-Keepers' Association, Mattie B. Thomas, Secretary, Sheboygan Falls, Wis.

Southeastern Michigan Bee-Keepers' Association, A. M. Gander, Secretary, Adrian, Mich.

Southern California Bee-Keepers' Association, G. W. Brodbeck, Secretary, Los Angeles, Calif.

Southern Illinois Bee-Keepers' Association, F. H. Kennedy, Secretary, Du Quoin, Ills.

Southern Indiana Bee-Keepers' Association, C. Firth, Secretary, Madison, Ind.

Southern Wisconsin Bee-Keepers' Association, J. T. Pomeroy, Secretary, Edgerton, Wis.

Southwestern Iowa Bee-Keepers' Association, E. W. Pitzer, Glenwood, Iowa.

Southwestern Wisconsin Bee-Keepers' Association, Benj. Rice, Secretary, Boscobel, Wis.

Stark County Bee-Keepers' Association, Mark Thomson, Secretary, Canton, O.

Susquehanna County (Pa.) Bee-Keepers' Association, H. M. Seeley, Secretary, Harford, Pa.

Texas State Bee-Keepers' Association, A. H. Jones, Secretary, Golden, Tex.

Tri-State Bee-Keepers' Society, Dr. A. B. Mason, Secretary, Auburndale, O.

Tuscarawas County Bee-Keepers' Association, Geo. F. Williams, Secretary, New Philadelphia, O.

Turkey Hill, Bee-Keepers' Association, A. Fehr, Secretary, Belleville, Ills.

Union Bee-Keepers' Association, Daniel Shank, Secretary, Clayton, Ills.

Union Bee-Keepers' Association, Mrs. J. E. Pryor, President, Dexter, Iowa.

Union Bee-Keepers' Society, G. W. Demaree, Secretary, Christiansburg, Ky.

Utah Bee-Keepers' Association, J. C. Swaner, Secretary, Salt Lake City, Utah.

Ventura County Bee-Keepers' Association, S. C. Gridley, Secretary, Nordhoff, Cal.

Vermont Bee-Keepers' Association, Miss Marcia Douglas, Secretary, Shoreham, Vt.

Wabash County Bee-Keepers' Association, Henry Cripe, Secretary, North Manchester, Ind.

Wabash Valley Bee-Keepers' Association, Frank Vawter, Secretary, Vincennes, Ind.

Welland County Bee-Keepers' Association, J. F. Dunn, Secretary, Ridgeway, Ont.

Western Bee-Keepers' Association, P. Otto, Secretary, cor. Park and 25th Sts., Kansas City, Mo.

Western Connecticut Bee-Keepers' Association, Mrs. W. E. Riley, Secretary, Waterbury, Conn.

Western Maine Bee-Keepers' Association, F. D. Wellcome, Secretary, Poland, Me.

Whiteside County (Ills.) Bee-Keepers' Association, J. M. Burtch, Secretary, Morrison, Ills.

Willamette Valley Bee Keepers' Association, E. J. Hadley, Secretary, La Fayette, Oregon.

Wisconsin Lake Shore Center Bee-Keepers' Association, F. Zastrow, Secretary, Kiel, Wis.

Wisconsin State Bee-Keepers' Association, Dr. J. W. Vance, Secretary, Madison, Wis.

York and Cumberland Bee-Keepers' Association, C. W. Costellow, Secretary, Waterboro, Me.

York County Bee-Keepers' Association, L. D. Stilson, Secretary, York, Nebr.

Honey in the Heart of a Tree.

A remarkable discovery was recently made at the Cathays yard of the Taff Vale Railway Company. A large elm tree, grown in Gloucestershire, was being cut up into timber, when, right in the very heart, a cavity measuring 8 feet by 7½ inches in diameter was discovered almost completely filled with the comb of the honey-bee, together with a squirrel's skull.

No means of access to the hollow was discoverable, neither was decay anywhere apparent, and around the cavity itself no less than 50 "rings," each ring denoting a year's growth, were counted, the outer bark being, too, without a flaw.

The hollow was of uniform size throughout, and presented the appearance of having been bored with an auger, and, great though its dimensions were, it was practically filled with the comb, proving that the bees must have been in possession for several years.

Empty combs of the queen-bee also showed that they had swarmed. How the bees got there can only be guessed, but is surmised that a squirrel once occupied a decayed hole in the tree, cleared away the decay, occupied the cavity as its own, and there died.

Then the bees entered into possession and filled the hole with comb, when, by some means, the entrance, which must have been small, became stopped, the large quantity of grub and fly being taken as demonstrative that the nest was not voluntarily deserted.

Then for 50 years the growth of the timber went on. The entrance being absolutely obliterated, and the hole being hermetically sealed, the comb was preserved from decay for half a century, to be found at last in the way described. The find is of the greatest interest to naturalists.—*Green's Fruit Grower.*

Owing to his success last year, C. H. Toll, near Denver, Colo., will increase his apiary this year to 500 colonies.

Topics of Interest.

How to Use Empty Comb.

G. M. DOOLITTLE.

There is a right and wrong way to do almost everything, and the reason why some men succeed well at a business while others fail, is because the successful ones take hold of the matter in the right way.

Some bee-keepers do not seem to succeed in using empty combs, when hiving new swarms on them, and seem to think that those who recommend such procedure are nearly, if not quite, insane. A correspondent writes:

"I have abandoned hiving swarms upon empty combs, as the bees will fill the combs with honey in a few days, filling them so full that the queens find but little room to lay; then they loaf a long time before commencing work in the sections, and when they do finally begin, it is in a slow, easy sort of way."

As I have used empty combs to hive prime swarms upon many times, and that with good results, it is evident that there must be a right and a wrong way to use empty combs, when working for comb-honey with prime swarms.

When a prime swarm leaves its old home, the queen going with such swarm is not in a condition for rapid egg-laying until the swarm has been hived long enough for the bees to get under full headway building comb; as this is one of the laws which governed them before they were domesticated by man, hence, if a full hive of empty comb is given such a swarm, the first thing the bees will do is to fill it with honey, no matter how few or how many sections are given, for the bees have room in this brood-chamber for all of their immediate wants.

If we extract from these combs we do not materially help the matter, except to give a little more room for the queen; for, after extracting, the first instinct of the bees is to fill those empty cells again, instead of leaving an empty lot of comb in the brood-chamber, to go to work in the sections. Thus we secure only a little extracted-honey for our trouble, while two such extractings will effectually exclude all honey from the sections; and not to extract, is nearly as bad, for after once filling the combs in the brood-chamber with sealed honey instead of brood, the bees are always loth to enter the sections; for the reason I first gave, which is, that they feel that all their wants are well supplied.

Now, the trouble with my correspondent was in giving the bees too many combs. By so doing, the bees found room to occupy all their forces in the brood-chamber, while if only one-half or one-third as many had been given, the bees, not being able to cluster and work on these combs, would have immediately gone into the sections, and gone to work there. Having thus at once started in the sections, the little honey stored in the few combs below will be carried to the sections as fast as the queen needs room for egg-laying, and the result with me always is, that at the end of 15 days from the time of hiving, the sections are well filled with honey, and the combs below are a solid mass of brood, except a little pollen and honey in the extreme upper corners of the frames.

The object should be in all cases, whether we use combs, frames of foundation, or empty frames, to get the bees to work in the sections immediately upon being hived. I use six Gallup frames of comb (equal to five Langstroth frames) for the very largest swarms, while others have but four or five, according to the size of the swarm to be hived, and in this way I always secure good results.

One of the secrets of securing plenty of comb-honey, is to have the sections just as near the brood as possible; and any plan which allows of one or more inches of sealed honey between the brood and the sections, at the beginning of the honey harvest, is certainly defective.

In hiving swarms on empty frames, with the sections filled with foundation, as our correspondent says he now does, places his bees in the right position to comply with the above secret, while with the hive full of empty comb the condition was exactly the reverse.

Another thing: While it is almost necessary to furnish a full sheet of comb foundation for every section when a swarm is so hived, such foundation is often as good as thrown away while working with combs as I have outlined, for I have repeatedly had sections filled and completed which contained only a small starter of natural comb, as quickly as those filled with foundation standing by their side, while an examination of these latter sections showed that said foundation had not been touched, except as the bees added their wax to it. Now, why was this?

The reason is very simple. All new swarms of bees have been preparing for a week previous to the time of issuing, for the construction of combs in their new home, and for this reason we often see little bits of wax, from the size of a pinhead, attached in many places to the limb of the tree they have clustered on, if they stay clustered for five minutes or more. This wax being secreted, must be used somewhere or wasted. When hiving in empty hives it is used in building comb down in the brood-chamber, while the bees are drawing out the foundation in the sections; while, when using combs below as I have given, it is used in filling the sections with beautiful combs, as they have no need for it below.

From the above it will be seen that the reason my correspondent and myself do not agree regarding the use of empty combs is, that we do not manage alike, and I suspect that the different methods of management is what causes the "bee-doctors" to so often disagree.

Borodino, N. Y.

Wintering Problem—Absorbents.

J. P. SMITH.

The middle of last September found me with 42 colonies of bees. Not caring to winter more than about 25 colonies, the question arose, What shall I do with the balance? I decided to examine them and unite where practical, which I did until I reduced them to 25 colonies, filling the hives literally full of bees. After smoking them quite thoroughly, they united readily without fighting.

In uniting 2 colonies, I would find and destroy the poorest queen. I managed this so that all the queens but two were hatched in 1891. I made a careful estimate of the honey in the newly-arranged hive. If it fell short of 25 pounds, I fed sugar syrup until they had from 25 to 30 pounds. This done, I put on Hill's device, or something similar. I left a large-sized passage-way out. I winter them on the summer stands, standing a board leaning against the hive in front of the entrance, to break the force of the wind, and to prevent the sun shining into the entrance.

Now for the result: Every colony came through with an abundance of bees, and plenty of honey, with combs as dry and nice as they were last Fall. One proved to be queenless, which I united with another colony; so that now I have 24 strong colonies of bees.

Drones made their appearance about a week ago.

In the Fall of 1890, I prepared my bees in the same way, and wintered them without loss. Last year my bees commenced swarming May 20.

Having been thus successful in wintering, by giving upward ventilation through a thick, porous cushion, I shall be very slow in changing to "sealed covers." The only moisture I found in opening the hives this Spring, was a little in the upper part of the cushion, all the rest being dry and warm. By removing the cover one sunny day, all this moisture disappeared.

Is not this a pretty good Winter record for one located on the bleak hills of New Hampshire, in latitude 43° north?

Sunapee, N. H., May 12, 1892.

Honey-Bees as House-Keepers.

WM. ANDERSON.

I have been interested of late in observing the domestic instinct of bees in the matter of cleanliness. On first opening the hives after they have been put out of the cellar in the Spring, one is apt to gain the impression that bees are less particular in the matter of cleanliness than that of industry.

Especially will this be the case if the colony has not come through the Winter in perfect health. Both the appearance and order of the hive will be anything but attractive, and an amateur will naturally conclude that the "busy bee" is a "dirty bee." That such is an aspersion, may be proven by any one who will take the trouble to examine carefully the healthy colony later in the season. As unreasonable would it be to charge your wife with slovenly or uncleanly habits, because the carpets and furniture in the parlors looked musty and dusty a week before the time of Spring house-cleaning!

The fact is, that the instinct of the bee is as keen on the matter of cleanliness, as that of the average human house-keeper—perhaps rather more so.

During the long Winter months the bees have had no chance to remove the accumulations of fetid matter beyond the immediate confines of the brood-nest.

If, through neglect or ignorance on the part of the bee-keeper, a colony has not been provided with the conditions necessary to health—as plenty of good sealed honey, dry, warm, equable temperature, etc.—disease or starvation to a greater or less extent will be induced. Great suffering and mortality will occur in the colony during the period of confinement, and often—as has happened in this part of Michigan the past Winter—only a handful of poor, sickly things survive. If they can weather the months of April and May, they will probably build up to be an average colony by Fall, but will afford no surplus honey, and are a source of no profit to the owner.

If bee-keepers could only realize the amount of unnecessary suffering they often occasion their little toilers, on account of their neglect of the fundamental principles of wintering, instead of turning up their noses, and exclaiming, "You dirty, ugly things," as they lift the cover on putting them out of the cellar, they would feel thoroughly ashamed of themselves, because they had been so stupidly mean in neglecting their best friends.

To be assured of the cleanly instincts of the honey-bee, we need but watch with what eagerness and energy they prosecute the work of house-cleaning as soon as circumstances and the weather permit them. Wives and housemaids with duster and broom, never created such stir and confusion as these little house-cleaners display in their ambition to make things sweet and neat in the home.

On they come, pell-mell! jostling and intercepting, and overturning one another a thousand times, and all with the good humor and grace of girls at play. One has assumed the duty of undertaker, and without ceremonial display, or affected grief, is bearing a departed sister to the brood-cemetery of the outer world. Another is tussling with a refractory straw-end which had penetrated the quilt, and been an eyesore for months; while a third is loaded with a lump of propolis from the inner floor board.

It is refreshing to see such zest put into what most house-keepers regard as an irksome task. If Solomon had been as familiar with the habits of the honey-bee as those of the ant, he would doubtless have made the former rather than the latter his model for general imitation.

The cleanly instinct of the bee is seen in all departments of its work, both inside and outside the hive. One thing has especially interested me, viz: the care displayed in preparing the cells into which the queen is to deposit her eggs. No painter or decorater ever did his work of renovation with half such ingenuity and perseverance. Not only is all the loose *debris* removed, even to almost microscopic completeness, but the cell is scraped and excavated throughout, and afterwards polished (not varnished!) until it shines like a mirror. Nature supplies this instinct, which, in a crowded condition of life, such as a colony of bees, is even more imperative than cleanliness, and attention to hygiene among the human species.

The same attention to the law of cleanliness is shown in the manner in which the nectar is deposited and sealed in the comb. What is more cleanly, beautiful, and appetizing sight than a comb of white clover honey newly sealed and properly secured?

Soiled comb-honey is largely due to carelessness on the part of the producer. With the knowledge we now possess, and the appliances at hand for securing a pure article, there is no reason why the rate of consumption of pure honey should not increase 100 per cent. during the next five years. If bee-keepers do their duty, it will.

Imlay City, Mich.

The Qualities of the Black Bees.

A. D. ELLINGWOOD.

Having had my say about the black bees, I had intended to keep quiet, but I feel called upon to clear up one or two points. The following questions have been asked in the AMERICAN BEE JOURNAL:

"Is Mr. Ellingwood sincere in his defense of the black bee, or is he doing it to be odd?" "Has he ever kept Italian bees?"

I think no one who knew my actual experience with black bees would doubt my sincerity in defending them. I firmly believe every word I have said about them.

In answer to the second question, I would say that I have had Italian bees every year but one that I have had the blacks. I have had 40 colonies of Italians at one time, and have bought Italian queens of well-known queen-breeders. I do not say that these queens were worthless; many of them have been valuable, but none have excelled my black queens.

I do not condemn Italian bees—far from it. I consider them an exceedingly valuable race of bees; but I do say, and can fully substantiate my claim, that *with me* the black bees have been more profitable than the Italians.

As I glance over the numerous articles in the various bee-papers upon this subject, I am greatly amused. One writer says this: "I will concede that the black bees cap their honey whiter;" another says they swarm less; another, that they sting less; another will reluctantly admit that they are superior in this, another in that; and when I come to sum the matter all up, I find that all of the valuable qualities have been conceded to the black bees.

Now, my claims for them are just these: They winter better in New Hampshire, cap their honey whiter, swarm less; they will work on any flower, clover, or anything else, that any other race of bees will work on.

I care not what motive may be ascribed to my defense of my favorite bees, I believe in time to come they will be regarded in a very different light than they now are.

I would like to see Mr. A. E. Manum or some other well known breeder, give them the same careful attention that they give their Italians, and note the result. Before condemning them further, why not breed them for their good qualities, and see what can be done with them?

Groveton, N. H.

Laying Workers, Contraction, Etc.

JAMES HEDDON.

I remember that the editor once suggested that some of the Queries in the AMERICAN BEE JOURNAL were excellent topics for articles, especially such as could not be fairly treated in the short space allotted in the Query Department, and in cases where misapprehension occurs.

What a tanglement and misunderstanding we get into concerning workers becoming fertilized (page 411), all because of the improper use of words. Some of the respondents said that workers were incapable of being fertilized; then what have we meant all these years past by the term "fertile worker?" What does "fertile" mean?

Productive soil is fertile soil; it means productive and not impregnated. Worker-bees do at certain times become fertile, what fertilizes them I do not know, but they change from workers to egg-layers, and are probably fertilized by a change of food.

Some of us, however, used the word "fertilized" in two different meanings in the same sentence.

Prof. Cook, a very good authority on this subject, seems to come nearer comprehending the querist's meaning than did the rest of us, yet he was puzzled, all from our habit of the improper use of words.

When we who responded came to see all the answers, we all very quickly comprehended the source from which the obscurity arose. In the future let us all be careful to use words properly.*

CONTRACTING THE BROOD-CHAMBER.

Query 814 is about contracting the brood-chamber. Each one of us told what we thought about results, and I think it would be a good plan for some of us to give the reasons why.

One writer uttered a great and important truth when he said that low grades of honey were among the worst of sweets, and that placing them upon the market had done more to degrade our product and cause the cry of "adulteration" than all the adulterating that had been done. You would be led to believe, by some writers, that granulated sugar was so bad and pernicious a sweet, as compared with honey; that every consumer could instantly detect the least particle of it in honey, when the facts are that State and United States chemists have made a gloomy fizzle with their chemicals in attempting to detect adulteration in honey.

The Washington fellows—the learned gentlemen who have graduated from some laboratory sufficient to tap the people for nice, fat salaries—pronounce Chas. F. Muth's bottled honey adulterated. What bee-keeper believes that? Not one, We all know Mr. Muth, and by his works we know him better than the chemicals of any chemist can tell us. When the actions of chemicals fail to tell the learned gentlemen whether the honey they are analyzing is pure or not (which is most of the time), they have a method of guessing at it, and for the guessing business they are assisted by the label. When they read on Mr. Muth's jars of pure honey, the word "Cincinnati," they cried "Adulterated! the town is too big for pure honey, you see!" But the facts still remain—the American people care nothing for the chemists, feeling wholly competent to take care of, and judge for, themselves. When they buy something which tastes pleasant, and sets gracefully upon their stomachs, they want more, no matter what you call it.

Honey is not sugar syrup; it is not as sweet. Most honey in this respect is more like glucose, but it has the aroma of flowers; it has a honey flavor received from the flowers; it contains an acid secreted by the body of the bee, besides another which the nectar contained while in the flowers.

Some honey is all grape-sugar, while other kinds are part grape and part cane. Some varieties have too much flavor from the flowers, and some not enough. Perhaps some might be improved if the bees were fed granulated sugar syrup while filling the sections, but it does not pay. People are willing to pay a confectioner for candy from three to six times the price of the sugar he used in making it, but very erroneously suppose the bee-keeper and his bees can work it over into honey for nothing. When sugar is worth more than honey, they suppose the same thing.

The facts are that sugar never was, is not now, and likely never will be so cheap that the bee-keeper can devote his capital, time and bees to it at as great a profit as to devote all three to the gathering of honey from the blossoms.

If some of the time spent in talking and thinking about adulteration was spent in studying how to produce rich, ripe honey, and keep it so, we would not not hear so much about impurity and adulteration of our product, coming from consumers.

The present cheap sugar can be very profitably employed in wintering bees; and this brings me to a few thoughts on the system of contraction, first discovered and practically used by Messrs. Oatman Brothers, and published by myself after having experimented with and profitably used it several seasons.

In consideration of the fact that rightly-prepared sugar syrup is much safer than honey as a Winter food for bees, at its present low price, together with the advantages gained in the quantity of surplus honey realized by such use, it pays well to practice the contracting system.

Some writers do not perceive that we gain anything by the above practice in surplus honey, except what we lose in the brood-chamber. Those who oppose contraction have so asserted, but they have proved nothing. You cannot forever go down-hill, but there will come times when you must go up. You cannot practice contraction at one time of the year without practicing expansion at another.

Now, what does this mean? Not alone that you force the best honey out of the brood-chamber and into the surplus sections, but that you breed bees to become producers instead of consumers. At a certain time of the year you need a large brood-chamber; at another, a small one, in order to economically breed bees for a purpose. The successful practice of contraction must be governed entirely by the honey-flow; it will vary some in different seasons, and very much more in different localities. Each bee-keeper should understand its laws and principles, when he will need no one to direct his practice.

In very many localities where the dreaded Winter disease, known as "bee-diarrhea," annually destroys portions of, or whole apiaries, the feeding of sugar syrup, even at the expense, trouble and risk (risk of robbing) will now at the low price of sugar, make it profitable even to extract honey to make room for the syrup. But how much nicer to have the brood-chambers all ready for the syrup, and the honey it replaces all ready for market, without such labor, trouble and risk; and that is just what contraction accomplishes, in addition to its other uses.

Dowagiac, Mich.

[*If the term laying-worker is used, no one can misunderstand it. To call it a "fertile worker" is misleading.—Ed.]

Judging Bees at Fairs.

W. C. FRAZIER.

At present there is some discussion in the bee-world concerning the judging of bees at Fairs. As I have had something to do for some years with the management of Fairs, both local and State, I will contribute my mite.

Stock of almost all kinds has a standard by which it is judged; in this respect the bees are behind other stock—they have no standard.

While the scale of points as adopted by the North American Bee-Keepers' Association might do for the breeder in his yards, and after having wintered a queen and used her through one honey season, he might be able to form a pretty correct opinion of how near she would come to filling the bill (though not one in ten could apply it correctly).

Yet this scale is entirely "too slow," and for the judging of a nuclei of bees on exhibition, that you have for the first time seen, it is useless.

To offer a scale of points that would be practical, would be to call down on the offerer's head a fire from all along the line.

Bees at the time these exhibits usually occur (the last week of August to the middle of October), have but very little brood; but if exhibited, they should be put in the best possible condition, and, if possible, have some brood in all stages, drones, etc.

The amount of hair on a worker-bee is an indication of its hardiness and honey-gathering qualities. Who knows how much of an indication this is?

The breeders generally are no more anxious to have a scale of points for bees than they are to have a system of grading honey; because, if there was, they would have to breed to it or quit. The way it is now, is like the man who was on the jury. He said: "It was no trouble at all for him to arrive at a verdict; but the others were the eleven stubbornest men he ever saw!"

There should be no competition between the three-banded and the five-banded Italians. Any association in any State, could have the State Fair premium list changed so as to admit the five-banded bees, in a separate class by themselves.

Present it in a proper manner, and at the right time, and without a doubt the request would be granted. But this must be done before the Board of Directors meet, which is usually in January. So it is too late for this year now, and as there will not be any State Fair in many of the States next season, it is too late for two years. (Illinois, Missouri, Iowa, Kansas, Nebraska, Minnesota, etc., will have no State Fairs in 1893.)

My own private opinion is, the time is far distant when a scale of points will be adopted for the Italian bee. Look at the advertising columns of any bee-periodical, and see what the breeders say of their own bees. One has "leather-colored bee;" the next has "five-banded golden;" another has a strain of "non-swarmers;" while his next neighbor has a strain of "red clover" bees. The next determined not to be beaten, has "a strain made up of all the good qualities of all the other strains." If the five-banded golden bees were 50 per cent. the best bees on earth, a few years of such work as has been done with them in the past would kill them out.

I know men who have purchased half a dozen of the untested queens at a time, and not one queen showed bees with more than three bands. I never received, or heard of any one who did receive, an untested queen of *some* of the breeders of "five-banded goldens," that did show five-banded bees.

I could not find a breeder who would guarantee to send me a breeding queen which he would guarantee to show all five-banded bees, for less than $5.00 or $6.00; while I can buy untested queens of five-banded stock in any quantity for from 60 to 75 cents. Now, I do not wish to convey the impression that all who advertise five-banded bees, have poor stock—far from it; but a person investing in them for the first time, is nearly sure to purchase of one of those whose bees (we will put it mild) do not test out well.

Suppose you would purchase six untested queens of five-banded stock; you would expect to get some five-banded bees. Now, if these would all test out to give three-banded bees, and nothing more, what would you think? Would you not be a little cautious where you invested again?

BLACK VS. ITALIAN BEES.

The discussion of blacks against Italians still goes on—perhaps always will. If a man wishes bees to shift for themselves, he cannot do better than to have blacks, or do a worse thing than to get Italians.

The Italians, like all other breeds of fine stock, require extra care. That is wherein their excellence lies.

The Shorthorn or Hereford cattle, turned loose upon the plains of Texas, would be a very poor investment; but stall-feed them, and the Texas steer is nowhere in comparison. Just so with the Italian bee. It is capable of management and manipulation, which could never be accomplished with the black bees.

Atlantic, Iowa.

* * *

A Very Backward Spring.

BENJ. E. RICE.

The Winter of 1891 and Spring of 1892 is now and has been one of the most destructive to bees that was ever known in Southwestern Wisconsin, by its oldest bee-keepers (possibly with the exception of the year so many were lost by disease). It has been now almost 10 months since the bees have had a chance to gather anything but pollen, and only now and then a day suitable even to get that. The most of the bees that were housed or kept in-doors during the Winter, were put out on the summer stands in March, and the bee-keeper has been continually looking, from that time up to the present time, for days that were suitable to work with bees, and give them the help they so much need.

The last two months have been exceedingly hard on them. It has been wet and cold five days out of six, and rained the most of the time for the last three or four weeks, and it is still at it, and if it continues much longer there will not be enough bees left for seed. Up to this time we have had the maple bloom, the elm, the willow, and some of the earliest Spring flowers, and put them all together, they have not benefited the bees one particle, for it was almost certain death to venture outside of their hives.

I have spent some time, of late, to find out as near as possible the number of colonies of bees lost, by those that I am well acquainted with, and who live near me, but as people do not care about every one knowing their ups and downs in life, I will omit the names and quote by numbers from one to twenty, and I think that will be a fair representation throughout this section of Wisconsin. These numbers, I think, will be less than the actual loss at this present time (May 17) considering the weather, as it is still raining and blowing, and the prospect looks very discouraging indeed.

The following will be the losses from twenty bee-keepers:

No. 1.— 50 per cent.
No. 2.— 45 "
No. 3.— 25 "
No. 4.— 80 "
No. 5.— 50 "
No. 6.— 50 "
No. 7.— 75 "
No. 8.— 70 "
No. 9.— 90 "
No. 10.— 75 "
No. 11.—100 "
No. 12.— 50 "
No. 13.— 30 "
No. 14.— 40 "
No. 15.— 25 "
No. 16.—100 "
No. 17.— 50 "
No. 18.— 40 "
No. 19.— 50 "
No. 20.— 90 "

The chances for bee-pasturage is good, providing we have favorable weather from now on, for the fruit-bloom buds are about ready to open, and there is a good chance for white clover to follow up in its turn.

Boscobel, Wis., May 17, 1892.

Bumble-Bees as Wax-Producers.

GEO. E. FELLOWS.

I send the following from the *Grange Home*, thinking that it might be interesting reading to those who take the AMERICAN BEE JOURNAL:

IMPORTING BUMBLE-BEES FROM INDIA TO PRODUCE WAX.

The Department of Agriculture is about to send an expedition to India for the purpose of procuring certain giant bees which are wild in that country. They are the biggest species known in the world, and they build combs in the forests as large as ordinary house doors, giving enormous quantities of wax. If they could spread themselves in the semi-tropical forests of the United States, they might be made to supply considerable crops of the finest and most valuable wax.

Curiously enough, the drones are no larger than ordinary bees, and this fact affords reason for hoping that they will mate with the females of colonies acclimated here. These wonderful insects have longer tongues than are possessed by other bees, and the belief is entertained that they could secure from many kinds of flowers honey which now goes to waste.

Bumble-bees are generally supposed to be of no particular use in the world. They are active and industrious honey gatherers, but there are never enough of them in one colony to make a store that is worth taking. When Winter comes the queen-bee seeks a place for hiding during the cold months, beneath moss, or in a heap of leaves. The warm sun of approaching Summer awakens her, and she crawls out. Immediately she looks about for a nest to breed in. She then begins collecting pollen for the nest, fetching load after load until she has formed a ball, perhaps as much as an inch in diameter. In the ball of pollen she lays her eggs, and after a few days they are hatched, bringing forth little worm-like larvæ.

The larvæ feed upon the nutritious material, consuming the portions nearest at hand, until each one has cleared a little room. Then it proceeds to spin a cocoon around itself, and after a little while it comes out of this chrysalis a full-fledged worker-bee. Almost immediately these new fledged bees begin gathering pollen, which they add to the original lump, while the queen goes on laying eggs in it as long as warm weather lasts.

Perhaps before Winter arrives the mass will have grown to tha size of one's two fists. It is literally honeycombed with cells from which the young bees have made their escape, and these empty chambers are used for the storing of honey. Most of the honey gathered by bumble-bees is obtained from red clover.

Up to nearly the end of the Summer the queen lays eggs which produce only females which are undeveloped sexually. They are the honey-gathering and comb-building class. When Autumn is coming on, however, she produces males, called drones. At the same period also she lays eggs which give birth to fully developed females, all of which are destined to be queens the following year. From six to twelve of the future queens are turned out by each hive. When cold weather arrives they crawl into snug places where they hibernate during the Winter, gathering pollen in the Spring, and laying their eggs in it. Only the queens survive, all the workers and drones dying.

Thus it may be said that every bumble bee hive is wiped out each Autumn. They do not gather in numbers sufficient to accumulate large stores of honey, notwithstanding their industry. Ordinarily, a single colony will not number more than 30 or 40 individuals. Their cells are huddled together without order, so that the honey cannot well be obtained from the combs in a clear state. —*Grange Home.*

The Wintering of Bees.

It is plainly to be seen that wintering bees does not entirely depend upon the weather. The season preceding has much to do with the success of wintering, and the prospects of the future crop. The past Winter has been mild, and yet bees have not wintered well. The cause of this impropitious result cannot be attributed to the severity of the Winter, but will have to be charged to the unfavorable conditions of last Fall, and the latter part of Summer.—*Exchange.*

CONVENTION DIRECTORY.

Time and place of meeting.

1892.
May 28.—Haldimand, at Nelles' Corners, Ont.
E. C. Campbell, Sec. Cayuga, Ont.

Sept. 7, 8.—Nebraska, at Lincoln, Nebr.
L. D. Stilson, Sec., York, Nebr.

Oct. 7.—Utah, at Salt Lake City, Utah.
John C. Swaner, Sec., Salt Lake City, Utah.

1893.
Jan. 13, 14.—S.W.Wisconsin, at Boscobel.Wis.
Benj. E. Rice, Sec., Boscobel, Wis.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Eugene Secor..Forest City, Iowa.
SECRETARY—W. Z. Hutchinson....Flint, Mich.

National Bee-Keepers' Union.

PRESIDENT—James Heddon ..Dowagiac, Mich.
SEC'Y AND MANAGER—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Good Prospect for Honey.

Bees have wintered only fairly in this vicinity. There was some loss in wintering, and a greater loss from Spring dwindling. The season up to this time has been very unfavorable on account of the continued wet weather; if not raining it is cloudy and damp, which is not good for the bees. The prospect for a honey crop was never better. Fruit trees are unusually full of bloom. White clover is making an excellent start, and the ground is thoroughly wet, so we expect a free blooming of all honey-plants. The honey that we got last year was very poor. B. A. MANLEY.

Milo, Iowa, May 17, 1892.

Early Experience in Bee-Keeping.

In 1858 I bought my first Langstroth bee-hive, paying $5.00 for the hive, and $5.00 for the right to use of the same. The hive was a two-story one, and the upper story was made of part glass and part wood; in other words, a double-glass super. The queen very rarely went above, and the bees stored from

200 to 300 pounds of surplus honey every good honey year. When the super was filled with honey, we would take it off, and drive the bees out with smoke, then take out the frames and cut out two-thirds of the honey, leaving the balance for the bees to start on again. They would quickly fill up again with nice white honey, to be robbed again in the same manner. It was a very smeary process for the bees, but we obtained lots of honey in that way. My first experience with bees was in 1842. I was a boy 12 years old. Early in the Summer of that year, a swarm of bees came to my father's, and settled on a fence-stake. I hived them in a hollow-log, open at both ends. I laid a loose board on top, and when the bees filled the hive, I took the honey out at the top.

C. L. Brown.

Louella, Mo., May 7, 1892.

Unfavorable Spring Weather.

We have had very bad weather here this Spring for bees. There was hardly a day in April that the bees could fly, and May, so far, has been cold and wet. There have been a good many colonies that have died, and some bee-keepers have lost all.

Nigh Bros.

New Cassel, Wis., May 16, 1892.

Drone Foundation for Sections.

Would it be any better to have the foundation for sections of drone-cell size? Please answer through the Bee Journal.

A. P. R.

Volo, Ills.

[At first the foundation for sections was made with the base of drone-cells, but the supposed advantages were more than counterbalanced by the disadvantages.—Ed.]

Bees Breeding Slowly.

Although Spring opened very early, and we had a few bright days early in April, since then we have had nothing but cold, rainy or windy weather, consequently bees are breeding up very slowly. I think, on an average, I have just about as many bees as I had a month ago. Pollen is coming in, and I am feeding a little inside the hives early in the morning.

C. A. Montague.

Archie, Mich., May 17, 1892.

Queen Mated with a Black Drone.

Will you please answer the following question: An Italian queen mates with a black drone, and her worker-bees will be hybrids, of course. Will her drones be pure Italians, or hybrids?

Joshua Taylor.

Richmond, Kan., May 11, 1892.

[If the queen is a pure Italian, her drones will also be pure Italians—no matter what mating she may have. If the drone she mates with is a hybrid or black bee, her worker progeny will be hybrids.—Ed.]

Another Section Press.

I send herewith a pencil sketch of a "section press" of my own invention, which I am using now. I find it far superior to anything I have seen or heard of. It does its work quickly, easily and well. With it I can put a thousand sections together in 40 minutes, if necessary. With 50 cents worth of material, any handy man can make one in two hours. There is no patent on it, and I give it to the bee-keepers of the United States, hoping they will give it a fair trial, and save money by it.

H. C. Babcock.

Lemoore, Calif., May 6, 1892.

[It is a bench about 4 feet long. The operator strides it like he would a horse, and while operating the treadle by foot, his hands are free to manipulate the sections. The idea is a good one, but its construction is much like several others which have preceded it.—Ed.]

Wavelets of News.

Timely Hints.

About this time, if bees are gathering nothing, their stores will disappear as if by magic, It is because they are using up so much to feed the young brood.

Very few bee-keepers ever get any surplus from fruit bloom. And yet fruit bloom is supposed to yield much honey. But it is all used up in rearing brood.

I gave each colony, as soon as I could, after being put out of the cellar, about 10 pounds of syrup.

The syrup was made thinner than would do for Fall feeding, 4 pounds of sugar to one quart of water. (Five pounds of sugar to one quart of water Fall feeding.) To prevent the granulation, I put an even tea-spoonful of tartaric acid to 20 pounds of sugar. It is important that bees now become strong in numbers.—DR. C. C. MILLER, in the *Stockman and Farmer.*

Rosy Prospect for the Season.

The outlook for the season has a rosy tinge, and with the copious showers of recent date, indicates a good growth of the sages for the year. Southern California has need of a good honey yield, as the last season did not pan out well, and the year before was not rated as an average. -C. N. WILSON, in the *Rural Californian.*

Bees and Fruit Growing.

It is simply an aggravated case of base ingratitude on the part of the fruit-grower, if he finds fault with his bee-keeping neighbor on account of the injury done to fruit by bees. The fruit-grower, in fact, has no warmer friend, no more useful agent, than the pollen-carrying, honey-seeking little insect. The interests of the fruit-grower and bee-keeper, far from being antagonistic, lie indeed so nearly in the same direction that we urgently advocate the combine of the two avocations in the same person.

The leading cause of barrenness in fruit trees and brush fruits is lack of proper pollenation, due again, in many cases, to the absence of the right kind of pollen, and in others to its non-transfer from the stamens to the needy pistils. Many trees are not self-fertilizing, either because their own pollen upon their own pistils has no potency, or because the pollen is not discharged at the time when the pistils are receptive.

We believe bees are a good thing, and a number of colonies should be kept in or near every orchard.—*Popular Gardening.*

President Harrison has accepted the invitation, conveyed to him by a committee, to attend the dedication ceremonies of the World's Fair buildings next October. Every member of the President's Cabinet, and of the Supreme Court, and nearly every senator, congressman and governor, also, will be present on that occasion.

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American Bee-Keeper	1 50	1 40
The 7 above-named papers	5 75	5 00
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Binder for Am. Bee Journal	1 50	1 40
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Western World Guide	1 50	1 30
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Nebraska Bee-Keeper	1 50	1 35

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

Winter Problem in bee-keeping; by G. R. Pierce, of Iowa, who has had 25 years' experience in bee-keeping, and for the past 5 years has devoted all his time and energies to the pursuit. Price, 50 cents. For sale at this office.

A Nice Pocket Dictionary will be given as a premium for only **one new** subscriber to this JOURNAL, with $1.00. It is a splendid little Dictionary—just right for the pocket. Price, **25 cents.**

The Honey-Bee; Its Natural History, Anatomy and Physiology. By T. W. Cowan, editor of the *British Bee Journal*, 72 figures, and 136 illustrations. $1.00. For sale at this office.

YOU NEED an Apiary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for $1.25; or for 200 colonies for $1.50. *Order one now.*

Supply Dealers desiring to sell our book, "Bees and Honey," should write for terms.

We Club the American Bee Journal and the Illustrated Home Journal, one year for $1.35. Both of these and Gleanings in Bee Culture, for one year for $2.15.

If You Have any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time.

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

When talking about Bees to your friend or neighbor, you will oblige us by commending the BEE JOURNAL to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the Convention Hand-Book by mail, postpaid. It sells at 50 cents.

HONEY AND BEESWAX MARKET.

CHICAGO, May 21.—Fancy comb honey is selling at 16c.; choice, 14@15c. Other grades 10@13c. Extracted, scarce, good demand, at 7@7½c. Beeswax, active sale, 28c.
S. T. FISH & CO., 189 S. Water St.

NEW YORK, May 21.—No demand for comb honey excepting fancy white. Quite a stock on the market of off grades and buckwheat. New Southern extracted arriving and sells at from 70@75c. per gallon for choice; 65@70c. for common. Beeswax quiet but firm at 27@29
HILDRETH BROS. & SEGELKEN,
28-30 West Broadway.

KANSAS CITY, Mo., May 21—Demand light, supply large. Prices: No. 1 white comb, 13@14c.: No. 2 white, 10@12c. Extracted, white, 6@7c.; amber, 6@6½c.; dark, 5c. Beeswax—Demand good, supply light. Price, 22@27c.
CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI, May 21—Demand is slow for comb with good supply. Price, 12@15c. Demand for extracted is fair at 5@8c.

Beeswax is in good demand, at 25@27c for good to choice yellow.
C. F. MUTH & SON,
Cor. Freeman & Central Aves.

NEW YORK, May 21—Demand for honey is very moderate, supply good, exceeding the demand. There is little demand for fancy 1-lbs. Market pretty well cleaned up of that grade, but plenty of fair. Prices: Comb, clover, 8@12c.; buckwheat, 7@9c. Extracted, clover, 6½@7c.; buckwheat, 5½@6c. Beeswax—Demand fair, supply plenty for demand, at 27@29
CHAS. ISRAEL & BROS., 110 Hudson St.

KANSAS CITY, Mo., May 21—Demand poor, supply light of comb. Fancy 1-lbs., 12@13c.; dark, 8@9c. Extracted, white, 7c.; dark, 5@6 No beeswax on the market.
HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, May 21.—The demand is slow, and supply fair, and will be absorbed by time new crop comes. Comb, 11@12½c. Extracted, 7@8c. Beeswax—Demand moderate, supply fair; price, 27@28c.
M. H. HUNT, Bell Branch, Mich.

CHICAGO, May 21.—Demand fair and supply short on fancy stock. Comb, 14@15c. Extracted, slow sale at 6@7c. Beeswax—Demand good, supply short on prime yellow; price, 25@28c.
J. A. LAMON, 44-46 S. Water St.

MILWAUKEE, May 21—Demand very moderate, supply average of all grades but common quality. Best 1-lbs. 15@16c; common, 12@13c. Extracted, white, in barrels, 7c.; in kegs, 7½c; in pails, 7½@8c. Beeswax—demand fair, supply small. Price, 23@28c.
A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO, May 21.—Demand light, supply light. Comb, 10@12c. Extracted, 5@6¼c. Beeswax — Demand fair, supply light. Price, 25@27c. A fair to good honey crop for 1892 is expected.
SCHACHT, LEMCKE & STEINER,
16 Drumm Street.

NEW YORK, May 21—Demand is light, and supply large, except buckwheat comb. We quote: Fancy white comb, 12@14c; buckwheat, 9@11c. Extracted—Clover and basswood in good demand at 6½@7c; buckwheat in demand at 5@6c. Beeswax in fair demand at 26@28c.
F. I. SAGE & SON, 183 Reade St.

CHICAGO, May 21. — Demand is slow, supply fair, but not excessive, and market should clean up. Prices: Comb, 15c. is about the top. Extracted, 6, 7@8c.; supply small. Beeswax —Demand good, supply better than last season. Price, 27c. for yellow.
R. A. BURNETT, 161 S. Water St.

BOSTON, May 21.—Demand is light, supply fair. We quote: 1-lb. fancy white comb, 13@15c; extracted, 6@7c. Beeswax—Demand fair, supply light. Price, 28c.
BLAKE & RIPLEY, 57 Chatham St.

MINNEAPOLIS, MINN., May 21—Demand is moderate, supply of dark is large, but white is not so plentiful. Prices: Dark comb, 10@13c.; white, 15@17c. Extracted, supply plenty. Beeswax—Demand good, supply small.
STEWART & ELLIOTT.

ALBANY, N. Y., May 21.—Demand is very little for comb at 8@12c. Market quiet. Extracted, 6@7c. Beeswax in good demand at 28@30c. for good stock.
H. R. WRIGHT, 326-328 Broadway.

NEW YORK, May 21.— Demand moderate, and supply reduced, with no more glassed 1-lb nor paper cartons, 1-lb. We quote: Comb, 1-lb, 14@15c. Extracted—Basswood, 7¼@7½c; buckwheat, 5½@6¼; Mangrove, 68@75c per gal. Good demand for dark extracted honey. Beeswax, in fair supply, with small demand, at 26@27c.
F. G. STROHMEYER & CO., 120 Pearl St.

The Convention Hand-Book is very convenient at Bee-Conventions. It contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with Subjects for Discussion. In addition to this, there are about 50 blank pages, to make notes upon, or to write out questions, as they may come to mind. They are nicely bound in cloth, and are of the right size for the pocket. We will present a copy for one new subscription to the BEE JOURNAL (with $1.00 to pay for the same), or 2 subscribers to the HOME JOURNAL may be sent instead of one for the BEE JOURNAL.

Prompt Shipment.

I have received the sections and foundation all right. Thanks for your promptness. The freight on the sections was only 75 cents.

Riverton, Ills. C. V. MANN.

Busy Bees, and How to Manage Them, by W. S. Pouder. Price 10 cents. For sale at this office.

☞ Subscribers who do not receive their papers promptly, should notify us at once.

Our Sewing Machine.

I have received your premium sewing machine, and am well pleased with it. My wife says that it does as good work as a machine that would cost $35 or $40 here. I would advise any one wanting a sewing machine to get one, because it is as good as any.

Lisbon, Tex. J. D. GIVENS.

◆

Prompt and Reliable.

I received the goods in good order five days after they were ordered of Thomas G. Newman & Son. Many thanks for such prompt shipment. They will receive my future patronage.

E. W. EMERSON.

Clear Lake, Wis., May 10, 1892.

◆

Get a Binder, and always have your BEE JOURNALS ready for reference. We will mail you one for 50 cents.

◆

Supply Dealers should write to us for wholesale terms and cut for Hastings' Perfection Feeders.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

FOR SALE OR EXCHANGE—Italian Bees and Queens. Address, OTTO KLEINOW, 22Etf No. 150 Military Ave., Detroit, Mich.

WANTED—The reader of this to send One Dollar for my new Smoker—the "Boss." The best, handsomest and most durable Smoker made. W. C. R. KEMP, Orleans, Ind. 18A5t

FOR SALE—Thoroughbred Light Brahma and Black Minorcan Fowls. Eggs $1.25 per 13. Circular free. ALBERT LIND, 20A3t Calumet Harbor, Wis.

WANTED—Five Hundred Apiarists to try my PURE ITALIAN QUEENS at one dollar each. Now ready. Satisfaction guaranteed.

H. M. STEPHENS,
21A4t Munden, Republic Co., Kan.

BEE-KEEPERS, combine Pure-Bred Poultry in connection with Bees—you will have something sure then, in a poor year for honey. I will send 15 Pure B. P. Rock Eggs for $1.00; 26 for $1.50. First Premium at Barry County Fair, 1891, on Breeding Pen. Address,

MRS. PARKER ERWAY,
20A3t Hastings, Mich.

WE SEND QUEENS

BY Return Mail to Anyone, Anywhere, at Anytime in U. S. or Canada. **Italian,** Untested, $1; 3, $2.75; 6, $5; 12, $9. Tested, $2; 3, $5. Two-frame Nucleus, with about 1 lb. of Bees, with any Queen, $1.25 extra. Safe arrival guaranteed. Send for our Circular of **Dovetailed** Hives, Smokers, Foundation, **Drones,** etc. **Colwick & Colwick, Norse, Tex.**

10Atf *Mention the American Bee Journal.*

A Rare Opportunity.

ON account of engaging in other business, I offer for sale **75 Heddon-Langstroth Hives,** 8 frames filled with Combs built on full sheets of Foundation, at $1.00 each. **100 Supers,** 6 wide-frames, tin separators, at 30c each. Hives and Supers are all painted, well made, and first-class in every respect. The above prices are much less than cost of material in flat. Sold in quantities to suit purchaser. Special discount on whole lot.

M. P. CADY, Birnamwood, Wis.

Bees by the Pound!

FRIENDS, I have 200 Colonies of Italian and Hybrid Bees I will sell you in June and July at $1.25 per pound; 10 lbs. or more at $1.15 per lb. Hybrid Queens, 50c.; Italians, $1.00. Safe arrival guaranteed. Money Order Office, Greenville, Tex.

MRS. JENNIE ATCHLEY,
22A4t FLOYD, Hunt Co., TEXAS.

Golden Carni-Italians—The Largest, Most Beautiful, Gentle & Industrious Bees. Try them and be convinced. Queens, $1.00 each. Sample Bees, 10c. Send for Circular giving full description.

22Etf **J. A. ROE, Union City, Ind.**

PUNIC QUEENS

REARED from Imported Mothers. Italians from our famous Hundred Dollar QUEEN. Golden Carniolans from original stock. Queens ready to mail May 25. **HENRY ALLEY,**
14Atf WENHAM, MASS.

DR. J. W. CRENSHAW,

Versailles, Ky.,

OFFERS For Sale, Untested Queens through May and June at $1.00 each; after 75 cts. Imported **or** Doolittle Mother. Contracts solicited. Also **Celery Plants** July to Sept. at $2.00 per M. Also any of Root's Goods

21A6t *Mention the American Bee Journal*

PRICE-LIST of BEE-HIVES.

		8-frame. 1½-story	10-frame. 1½-story	8-frame. 2-story	10-frame. 2-story
In lots of	5	72c	82c	87c	97c
" "	10	69c	79c	84c	94c
" "	25	60c	70c	75c	85c
" "	50	58c	68c	73c	83c
" "	100	57c	67c	70c	80c

The reason we can sell hives so cheap, is that Lumber is cheaper in Minnesota than in any other State in the U. S. The above prices are for Dovetailed, Simplicity and three other styles. Send for Catalogue.

F. C. ERKEL,
19Atf LE SUEUR, MINN.

Mention the American Bee Journal.

THE AMERICAN BEE JOURNAL CIRCULATES ALL OVER THE WORLD.
PUBLISHED BY
GEORGE W. YORK & CO.
CHICAGO, ILL.

ONE DOLLAR PER YEAR.

Club Rates,—Two copies, **$1.80**; 3 copies, **$2.50**; 4 copies, **$3.20**; 5 copies, **$3.75**. Mailed to any addresses.

THOMAS G. NEWMAN, } EDITORS.
GEORGE W. YORK, }

Vol. XXIX. June 2, 1892. No. 23.

Editorial Buzzings.

We Live enraptured—thou'rt here, O June!
All fragrant with the odor of thy roses.

Father Langstroth—the "grand old man" of American apiculture—as noticed on page 635, is again freed from his sad brain-troubles, and in a letter received a few days ago, he promises soon to write for all his bee-friends an account of his affliction. Every one interested in modern bee-keeping will be delighted to learn of this improvement in Father Langstroth's health, and will read with delight anything from his able pen, which, for so long a time, has been silent. We announce this in advance, so that our readers may be sure to look for and read his articles, a number of which he intends writing for publication in the AMERICAN BEE JOURNAL, upon topics of interest to bee-keepers.

IMPORTANT NOTICE.

We have this day sold the AMERICAN BEE JOURNAL, together with the printing office, "good-will," accounts, etc., to George W. York & Co., who will continue its publication, as heretofore, at the same location, and we commend them to all our friends, bespeaking for them a continuation of that liberal patronage so long bestowed upon us. They will fill all unexpired contracts, and receive all subscriptions now due.

THOMAS G. NEWMAN & SON.
Chicago, Ills., June 1, 1892.

Editorial Comments.

Owing to failing health, it has been deemed advisable for us to be relieved of the labor and worry consequent upon the management of the AMERICAN BEE JOURNAL, and hence the change announced above. We shall, however, continue our interest in the pursuit, and in an editorial capacity to give advice and counsel—but shall be relieved from financial responsibility, which is no small matter in a Weekly BEE JOURNAL, with a world-wide circulation and influence.

The policy of the BEE JOURNAL will be unchanged, but its influence will no doubt be extended, for Mr. George W. York, the head of the new firm, is an educated young man, and full of vigor; he is a good writer, and has earned a noble reputation for honor and integrity. He is also a practical printer, and having been our valued assistant for the past eight years, is fully competent to so manage the BEE JOURNAL in the future that it will lose none of its reputation for punctuality and general typographical excellence. In fact, it could not have been committed to more competent and worthy hands. Let all give a cordial welcome, and a generous support.

Short biographical sketches are now quite popular in apiarian circles, and help much to make all feel better acquainted with one another. We, therefore, have much pleasure in presenting to our many readers the following concerning our successor, who will hereafter conduct the "old reliable" American Bee Journal:

George Washington York, whose picture is shown on the next page, was born on February 21, 1862, in Mount Union (near Alliance), Stark county, Ohio, where his father, John B. York, was completing the course of studies in Mount Union College, which is there.

When "George" was seven years old, the York family (which later consisted of ten members) moved upon a farm of nearly 100 acres, in Randolph, Portage county, O. Here he found ample opportunity to work as well as to grow. Each winter he attended the country school, and at the age of 16 years began teaching in the district schools of surrounding townships, which he continued until 20 years old, excepting the time spent upon the farm during summers, and studying at Mount Union College, from the Commercial Department of which he was graduated in June, 1882, and continued there, for a time, as instructor in penmanship, mathematics and bookkeeping.

In the Spring of 1884, after a most successful term of teaching, we met Mr. York while visiting our nephew, Mr. B. Harding, where Mr. Y. had boarded during two of three winters that he had taught the district school of which Mr. Harding was a director, in Kent, Ohio.

Being much pleased with his attainments and industrious habits, we engaged Mr. York as an assistant in the office of the American Bee Journal, and in due time he followed us to this city, and entered upon his labors. Here he learned the printing business, and step by step advanced to positions of confidence and responsibility, until, during our late and long-continued indisposition, he has had the entire editorial management of the Bee Journal, and that work not only received our approval, but has merited, as well as received, the commendation of many of our readers and patrons.

He is, therefore, not a stranger, but a faithful friend and co-worker, who steps into our shoes, wears our mantle, and we feel sure will be received by all as a successor worthy of much esteem.

Now, as to ourself. Well, we feel like many fathers and mothers have felt before us, when their loving and faithful daughter marries. It is a struggle; there are many heart-aches, and many tears, as the event is consummated. It is hard to give her up—but it is necessary for her welfare and the prosperity of the race. They bow to the inevitable, and take all the comfort they can from the "good prospect ahead," and pray for "long life and happiness."

Just so it is to-day with us. Our "child of promise" is grown to "mature age," has been "wooed" and "won" by an ardent lover, and to-day the marriage is celebrated. With throbbing heart and tearful eyes we lift our hands to Heaven and pray for "usefulness and prosperity"—for long-continued and successful existence. Our benediction be "upon thee and thine, forever!"

Thomas G. Newman.

INTRODUCTORY REMARKS.

As indicated by the foregoing announcement and explanations, with this issue of the American Bee Journal it passes into other hands, though not altogether strange or new ones. It is with feelings full of hopefulness that we are privileged to begin the work practically laid down by our beloved friend, who has so long, so wisely, and so well performed it, and try to continue that work as he would have done, did health and strength permit.

In assuming the management of the American Bee Journal, which, through the untiring zeal and devoted wisdom of Mr. Thomas G. Newman, has become the leading weekly apicultural periodical of the world, we realize that no small demands will be made upon us in order to continue its production up to the exalted standard that it has reached to-day.

Having known Mr. Newman so intimately for so many years, and also being so closely connected with the work of editing and publishing the AMERICAN BEE JOURNAL, we know something of the prodigious amount of toil and energy that he has bestowed upon it. It is to-day the result of almost a life work. Nearly 20 years of constant thought, effort and attention has Mr. Newman given to the BEE JOURNAL and the best interests of the pursuit of bee-keeping; and now, having won lasting victories and well-merited laurels through his noble and energetic writings and deeds, he places in other hands his "loved child," which he has so tenderly and carefully guarded and protected during a score of years.

No words of ours would cause bee-keepers to hold more dear, him who has for nearly a quarter of a century stood so bravely at the helm of this argosy of concentrated nectaries, whose sweetened morsels of admonition and advice have been prized by so many during all these years. That name—Thomas G. Newman—wherever known (and that is everywhere that bees have flown), carries with it a wealth of influence and good cheer. Not only on this side of the great Atlantic, but beyond the "billowy deep," his name is cherished, his labors prized, his life revered. To him belongs the meed of praise and honor, and such will be freely given by all apiarists when the more refulgent light of the future reveals to the world the unselfish devotion and tireless efforts that he has given in behalf of those whom he so much

GEORGE W. YORK.

delighted to serve and help in any way he could.

Remembering this, as we do, and also the high regard which hosts of bee-keepers throughout all the world have always had for the AMERICAN BEE JOURNAL, we can but put forth our very best endeavors to sustain the high and well-deserved reputation that the JOURNAL has won through its 30 years of uprightness and reliability.

We shall ever aim to merit the continued hearty support of every apiarist throughout the length and breadth of the land, and so labor for their and our common interest in the pursuit of apiculture, that the former brightness of the career of the "old reliable" AMERICAN BEE JOURNAL may but prove to be the faint glimmerings of the morning sunlight over the Eastern hills, which foretell the dawning of a more glorious day.

It is with united hearts and hands that great and enduring structures are reared in the realms of thought and intelligence; hence it is our sincerest hope, that there may be such a union of purposes and desires on the part of both publishers and readers as to insure the existence of the happiest and most blessed relations between the two; for only by such mutual feelings can there come to all the most good and largest degree of helpfulness from our efforts.

Having already undertaken the duties imposed upon us by this new relation, we wish to say further that we want our readers to feel, from the start, that we are their friends, and desire to become better acquainted, and aid them in the industry of bee-keeping in every possible way. We shall be pleased to see any of them at the BEE JOURNAL office, whenever they can call; and any practical suggestions in the line of improvement in the publishing of the BEE JOURNAL, so as to increase its usefulness and extend its influence, will be thankfully received.

While we know it will be almost impossible to please every one, and that the position which we shall occupy will often require the utmost care and discretion, yet we shall try to treat all with kindness and impartiality. Our motto has long been: "*Thue recht und furchtet niemand*"—"Do right, and fear no one." We see now no cause to change it.

And now, earnestly hoping that the approaching season, though at present rather inauspicious, may be unequaled for its abundance of sweetness, and that each may get his rightful share, we are,

Fraternally yours,
GEORGE W. YORK & Co.

The American Bee Journal was born on Jan. 1, 1861, and that is nearly 32 years ago. It has earned its title of "The old reliable." The lamented Samuel Wagner was its projector and first editor. He died on Feb. 17, 1872. He was succeeded by his son, George S. Wagner, for one year. Then the Rev. W. F. Clarke was its editor for about a year, when it became the property of Thomas G. Newman, who has controlled its destinies for nearly 19 years, and placed it upon its present firm foundation. Its influence is world-wide, having readers and correspondents in every quarter of the Globe.

Apiarian Relics.—The Dixon, Ills., *Sun* says: "At the Columbian Exposition in 1893, there will be, among other things, an apiarian exhibit from all parts of the world, in which relics of antiquity in the shape of hives, etc., will be a prominent feature. Mr. E. Groh, of our city, has secured for that occasion four of the ancient straw hives, made by his grandfather in Pennsylvania more than 100 years ago. They are in a good state of preservation, and are quite a curiosity."

A Firm, regular and constant use of honey is probably the best remedy for throat trouble known. It is an inexpensive medicine. Use it.

Over 20 Years Ago the AMERICAN BEE JOURNAL was published in Washington, D. C., and even now we receive requests for sample copies directed to that place. Through the kindness of Mr. Frank Benton, of the Agricultural Department, to whom was referred a BEE JOURNAL letter directed to the Nation's capital city, it was forwarded to the proper address last week. This shows that the postal authorities take great pains to have mail matter reach its intended destination. What a wonderful thing is our postal system! When we get the free delivery of mail throughout the country, then farmers will also receive greater benefits from the Government which they help to support.

National Bee-Gazette is the name of another new 32-page monthly periodical, published by Geo. W. Penn, of Missouri. It is devoted to bees, home and farm interests, and is nicely printed and neatly gotten up. This is the time for the blooming of flowers, and naturally new papers now blossom, too.

Brother Muth, of Cincinnati, O., whom we mentioned on page 697 of last week's BEE JOURNAL when commenting upon the new phase of the "Wiley lie," has written us a letter about the matter, a portion of which we copy below. All bee-keepers know very well that Brother Muth *knows* what he is talking about, whenever he says anything. The following is his comment upon Wiley's "Report:"

> Some years ago, when I had a collection of different qualities of honey, such as clover, basswood, buckwheat, Spanish-needle, golden-rod, etc., made up for the instruction of our bee-keeping friends, I left them with Prof. Wiley, at his request. He gave us his report at the American National Bee-Keepers' meeting at Flint, Mich., if I remember correctly. The best that Mr. Wiley could say of the samples was, that they were adulterated, and that one was probably pure. Now, I knew that Prof. Wiley was wrong, for I knew that every sample was pure honey, *i. e.*, if there is pure honey at all, or if we know anything.
>
> I was disgusted with the result of the analyses, and refused to send Prof. Wiley any more samples. He may be an efficient chemist, and I do not wish to believe that he is malicious and prejudiced against me, but—I am no adulterator!
>
> Prof. Wiley's chemical tests should not be considered conclusive until further tests have been made. I have read of his reports—the articles most damaging against me only; my time and aroused feeling prevented me from reading more. But from a favorable review of Prof. Wiley's reports, by Prof. Cook, of the Michigan University, at Lansing, I see that most of my samples were pronounced genuine. I cannot reconcile this with my knowledge of the fact that *all* must be either pure or adulterated, because all our small packages are put up in the same manner, every time, and have been so for years.
>
> Prof. Scovell refers to the machine with which bee-keepers extract their honey, and says, referring to me: "The machine alluded to in his label is, undoubtedly, the converter in which cornstarch is changed into glucose," etc. This quotation seems malicious, and out of place. Is Prof. Scovell ignorant of the existence of the machine which is employed by bee-keepers to extract their honey from the combs?
>
> Our store and warehouse, as well as our packing arrangements, and every package of honey in our possession, are open for inspection to every respectable visitor. We have no secrets.
>
> CHARLES F. MUTH.

The World's Fair announcement of apiarian arrangements, mentioned on page 695, to be in this issue of the BEE JOURNAL, came from Dr. Mason too late for publication this week. Next week we will devote considerable space to World's Fair matters of interest to bee-keepers.

Australia again has a bee-paper. It is called "The Australian Bee-Bulletin," published monthly by Mr. E. Tipper, of West Maitland, New South Wales. It contains 16 pages, and is edited by Mr. E. G. Harrison. It began with the April issue.

The Wasp and the Bee.

A wasp met a bee that was just buzzing by,
And said, "Little cousin, can you tell me why,
You are loved so much better by people than I?

"My back shines as bright and as yellow as gold,
And my shape is most elegant, too, to behold,
Yet nobody likes me for that, I am told."

"Ah, cousin!" the bee said, "'tis all very true,
But if I were half as much mischief to do,
Indeed they would love me no better than you.

"You have a fine shape, and a delicate wing;
They own you are handsome, but then there's one thing
They cannot put up with, and that is—your sting.

"My coat is quite homely and plain, as you see,
Yet nobody ever is angry with me,
Because I'm a harmless and diligent bee."

From this little story let people beware,
Because, like the wasp, if ill-natured they are,
They will never be loved, if they're ever so fair.
—Chatterbox.

Queries and Replies.

Drones from an Unfertilized Queen.

Query 821.—Suppose we take a queenless colony of bees at the time when there are no drones, and give them some eggs; they rear a queen, and she is not fertilized, as there are no drones, and the result will finally be a hive full of drones. Are the drones reared from that unfertilized queen of any value for breeding purposes?—Calif.

Yes.—Mrs. L. Harrison.

It is said not.—Mrs. J. N. Heater.

Yes, certainly. Why not?—Dadant & Son.

Theory says they are, but I doubt it.—E. France.

I do not know. No one does. I think not.—J. A. Green.

With the microscope, I can discover no difference.—H. D. Cutting.

I should consider such drones of no use for fertilizing purposes.—C. H. Dibbern.

I don't know. Some of the best authorities say they are.—C. C. Miller.

I am told they are good, but I have never tested the matter.—P. H. Elwood.

If reared under favorable circumstances, I know of no reason why they would not be as good as any.—R. L. Taylor.

I believe they are. I have reason to believe that I have had queens fertilized by drones from eggs of laying workers. —M. Mahin.

I guess so. I guess they are perfect, according to the accepted theory. I am pretty busy producing honey about those days.—James Heddon.

Authorities say so, so far as the reproductive functions are concerned, but should the queen be from a colony of worthless blacks, I would say no.—J. M. Hambaugh.

I have no doubt but that they are as good as any. There are those, however, who say no. The microscope detects no reason why they may not be entirely virile.—A. J. Cook.

Some doubts have been expressed in regard to this matter, but in my opinion they are not. In this opinion I am aware that many differ, but it is safe to follow it.—J. E. Pond.

If they were developed in drone-cells they would be capable of performing the functions of fertilization; but if developed in worker-cells it would be doubtful if they would be of any service.—J. P. H. Brown.

No such result as a "hive full of drones" will occur, unless worker brood is added to keep up the strength of the colony. There is a difference of opinion as to the value of drones from an unfertile queen.—G. M. Doolittle.

I don't know, but I think "yes." With some other insects I believe it is a recognized fact that several generations are produced without fertilization, after which the other sex is produced. Dzierzon thought that drones from laying workers are virile.—Eugene Secor.

I had such a queen once, and tried to get an early lot of queens mated to her drones, but not one of the queens became fertile until drones from colonies with fertile queens began to fly. Others have had the same experience; hence, it is believed that in some way the drones of unfertilized queens are impotent.—G. L. Tinker.

I think that the drones from an unfertile queen are all right, as this seems to be one of Nature's ways to protect the race; *i. e.*, a queen has the power to rear drones for her own fertilization, when there is no other way. But somehow I imagine something says, "Do not use them, if you can help it."—MRS. JENNIE ATCHLEY.

Science says "yes," but all my experiments to prove science correct say "no." In my locality I often rear young queens in the month of March to save queenless colonies, and this has given me the opportunity to test the potency of drones from unfertilized queens, and I have not succeeded in getting a single queen mated by such drones.—G. W. DEMAREE.

The case is hardly probable. Worker brood would be necessary to have a "hive full" of any kind of bees. Such drones are said to be virile, but we have some doubts as to their potency.—EDITORS.

German Visitors to the World's Fair in 1893 will have a good opportunity to come and see something of America, as an association has been formed in Germany to organize excursion parties to visit the World's Fair and incidentally Niagara Falls, and a number of the larger cities. It is proposed to accomplish this within a period of sixty days, and an expense of between $250 and $300 for each person.

J. E. Snider, an apiarist of Utah, says the principal pasturage for bees in Utah is sweet clover, and consequently their main honey crop comes in the Fall. The quality of the honey is excellent, and the quantity is almost unlimited—thousands of acres of sweet clover go to waste every year because there are not enough bees to gather the nectar.

Keep Honey in a warm, dry room, and have it thoroughly ripened before taking it from the hive. Honey is certainly deliquescent—seems to have the property of taking up any moisture there may be in the air. For that reason it should be put as near as possible where there is no moisture.—*Exchange.*

Topics of Interest.

Worms Destroying the Bees.

G. M. DOOLITTLE.

Picking up a paper the other day, I found an article telling of the writer's ups and downs in apiculture. He told how some of his bees died of starvation, some winter-killed, and how others were destroyed by worms. It is nothing new to read of bees being destroyed by worms, for we very often hear of numerous losses from this source. As a good colony of bees is never destroyed by worms, such expressions are not only fallacious, but misleading, and as such statements tend to make the beginner fearful of loss of bees from the ravages of moth-worms, I will explain the workings of the larvæ of the bee-moth, and the only fear we need have of it.

If a colony of bees becomes very weak and ready to die from loss of its queen or other causes, so the combs are not occupied with bees, and have not been exposed to a degree of cold as low as 12° above zero, when warm weather comes to stay we always find the larva of the wax-moth upon them, and more abundant in those that have pollen in them, and have been used for breeding purposes. When once under headway, it takes but a short time to reduce the combs in a whole hive to a mass of webs.

Now, the worms cannot come into full possession of the combs so long as there are bees upon them, although we find here and there a worm that has eluded their vigilance for a time. The Italians keep them out much better than either the hybrids or blacks, a handful fully protecting a whole hive of combs, the worms being kept in submission as long as a few score remain.

If from any cause a colony becomes hopelessly queenless, and the bees die of old age in from 50 to 60 days from the time the last bee hatches, which they will do if in summer, then the combs are left so there is no restraint on the worms, thus giving them full sway, so that in a short time the combs are ruined.

The careless bee-keeper comes along, and seeing no bees issuing from the hive, tips it up to find nothing but a lot of webs and disgusting worms, when he at once concludes that the worms destroyed his bees. Did the worms destroy the colony? Certainly not; the colony was destroyed by the loss of the queen, spring dwindling, or whatever the cause was, and the moths came in as an effect.

It frequently happens that we lose part of our bees in spring, and wish to preserve the combs until the remainder of our bees increase to occupy them, for such combs are of decided value, even in these days of comb foundation. To keep them from being destroyed by the moth-worms, requires close watching, and all should be looked over as often as once a week when warm weather comes.

As soon as many worms are seen, hang the combs in a small, close room, so that the fumes from burning sulphur can penetrate all parts of them, and burn one pound to every 100 cubic feet contained in the room. To burn it, get an iron kettle, put some ashes in the bottom, and set the kettle in a large vessel containing some water, so that there can be no chance of fire, for you cannot stay and watch it after it gets to burning.

Now put a shovelful of coals on the ashes in the kettle, and pour on the sulphur. Shut the door, and leave them for 24 hours or more, and if they are kept after this where the moth cannot get at them, it is rarely the case that they will need looking after again, even if you keep them away from the bees for years.

Once or twice I have had to sulphur such combs again in a month or so, as there were a few unhatched eggs that were so secreted in the combs that the sulphur did not reach them strong enough to kill them.

If combs are hung from one to two inches apart in a dry, airy room, they are not as liable to be troubled with the moth-larvæ as they are where packed closely together. If you expect to use them rather early in the season, taking this precaution is often all that is necessary. It is always well to look after them occasionally, however, when they are thus left.

When you hear expressions about worms killing bees, you can safely decide that they come from those who are careless or ignorant. From the careless, because they do not attend to their business as they should, so that they do not discover that their bees are gone, until the combs are destroyed by the worms. From the ignorant, because if well posted in all that is going on inside the hive at all times, they would know better.

I will not take space here to tell what a moth-miller is, how she gets her eggs in the hive, how the worms look, etc., for this can be found in any of the books on bees. If you have not any of these books, my advice would be to obtain one at once, for you cannot well understand much unless you know the first principles of bee-keeping.

Borodino, N. Y.

Bee-Keeping and Poultry-Raising.

G. A. STOCKWELL.

The two industries may go together and be as profitable as when conducted separately. Indeed, they fit into each other, dovetail together, as some branches of agriculture do. Practically, bees require attention only six months in the year—that is to say, if they are properly attended to in six months, they will take care of themselves in the remaining six months. There ought to be little to do with bees before the first flow of honey, about the middle of May, and after the first frost, or about the middle of October. This makes five months. The other month may be used in preparing, at odd times, implements, or the product for market.

If bee-keeping is conducted on a large scale, the time of active work is the same, but more time must be given in the busy season, and more between seasons. When the bee-season ends in October, then begins the time of activity in the poultry yard—preparing for market, and bringing forward the early pullets to lay in January and February, when eggs are worth more for table or for incubation. In the spring, the setting hens, most of them, ought to be off their nests, and out with their broods by the middle of May, or the first of June, if early layers and good chicks, marketable on or before Thanksgiving, are wanted.

During the summer, bees do not require so much attention as many suppose, or so much as many bee-keepers give them. But let no beginner imagine that they will "run" themselves, or that they can be neglected, and be profitable. The right service or help they must have at the right time. By the double-hive non-swarming (almost) system, an apiary may be conducted profitably with comparatively little work and little time—less if comb honey be the object, more if extracted honey be wanted.

If swarms should appear, the bee-keeper is at hand, but there will be few swarms, if any, if the system referred to is followed, and the hives are shaded after the first or middle of June. In the meantime, the occupants of the poultry yard are coming on. Certainly, the bees require no attention in the morning, when the flock is fed, and none at night when it is fed again. The chicks are started on their day's growth, and, ordinarily, need only occasional oversight until night.

As to bees and fowls occupying the same yard, that depends upon its size, meaning by "yard" the range and forage ground of the fowls. The writer had 18 colonies of bees at one time, 24 at another, and also chicks and fowls to the number of more than 200 that roamed at will around the hives if they wanted to. There was no clashing between them, and no evidence that one was aware of the existence of the other, but the range extended over four acres or more. Of course, bees should not be kept in a hen-coop or yard, where the fowls are shut in, even if the place be an acre in area.

With the bees and the poultry well in hand, the keeper may still have time to till a garden. Chicks and vegetables may not grow and thrive in the same inclosure, but there may be a side-patch in which the tiller at his work may be within call, if his broods require attention. If he will plant raspberries with a lavish hand, he will have shade for his chicks, essential in the summer, honey for the bees and for himself, and fruit for his table and market. On a snug place, with all these factors at work for bread and butter and raiment (and taxes), with good health and a quiet conscience, what more can a man wish?—*Country Gentleman.*

Does Alsike Clover Pay?

M. M. BALDRIDGE.

C. L. Comstock, of Dane county, Wis., a grower of Alsike clover, writes me May 17, 1892, in substance as follows:

"I have grown Alsike clover for the past 12 years, and I think it is the most profitable kind of clover to grow. I have talked a great deal to my neighbors about growing Alsike, but they have taken no special interest in the subject until recently. I have this year eight acres of Alsike that I shall save for seed. It is not mixed with timothy nor any other clover. I have also some land seeded to Alsike and timothy that I shall keep for pasture and hay. I like the hay from Alsike better than red clover, for it never gets *dusty*, and can be fed with safety to horses.

"Last year I cut 12 acres of Alsike for seed, and secured therefrom 75 bushels, which I sold to a seed firm in Chicago at $7.35 per bushel. When Alsike is grown for seed, I think it is better not to mix it with anything else. When cut for seed, I cure it mainly in small bunches."

The reader will notice that the average yield of this crop of Alsike seed was 6¼ bushels per acre, and that it was sold at nearly $46 per acre—to say nothing about the value of the hay after the seed was taken from it.

In my former article on Alsike (see page 674), it is stated that Mr. Anderson secured 189 bushels of Alsike seed from 45 acres, or an average of 4 1-5 bushels per acre. In 1886 (see "Alsike Clover Leaflet") Mr. A. had 110 bushels of seed from 20 acres, or 5½ bushels per acre.

Now, who is there to say that it does not pay to grow Alsike?

St. Charles, Ills., May 20, 1892.

Large Hives for Out-Door Wintering.

J. H. ANDRE.

Having experimented with different kinds of hives the past 12 or 15 years, I have reached what I believe to be a safe conclusion, viz.: that hives for outdoor wintering should be large, and not less than 10 inches depth of frame inside measure.

My largest hives are 16 inches square inside, with 20 frames arranged transversely. Probably 24 frames would have been better. None of the frames reach across the hive. The only objection to this style is, the frames are very hard to work. Probably if more frames were used, the trouble would be less, but it could not be practicable to any extent.

With this style the bees can reach any part of the hive by way of the center without passing the frames at the outside. This prevents parts of the cluster from becoming isolated and perishing during severe winter weather, which frequently happens with frames which reach across the hive.

Another style I have tried, with the brood-chamber 14x17 inches, 12 frames 8½ inches deep by 12¾ inches in length, inside measure, gives less trouble to work the frames, of any hive I ever used, but the frames are too shallow, and somewhat too short for out-door wintering.

Both styles were made to get a large brood-chamber and avoid a large frame. Probably there is but little difference whether the frames are shallow or deep for in-door wintering at safe temperature, but I should not care to risk a shallow frame out-doors in winter in this latitude.

I am one of those "cranks" who believes in early brood-rearing to get young bees to take the place of those that die off during March and April (which is called "spring dwindling"), and I am well pleased to find breeding commenced in February. In this matter I have succeeded best with a good depth of brood-chamber.

I think so well of a passage-way over the frames of ordinary hives in winter, that I shall always practice it hereafter.

Lockwood, N. Y.

Transferring Bees—Size of Hives, Etc.

DR. C. C. MILLER.

Several questions have been received for replies, as follows:

Question: "My bees are in box-hives, and I want to change them. Can I transfer in May?"

Answer: Yes, you can transfer them at any time, but probably the most transferring has been done when fruit-trees are in bloom. At that time there is a great deal of honey in the hive, and the less honey in the combs the more easily handled and the less daubing. If you transfer at a time when bees are gathering no honey, there is danger of starting robbing, and a colony just transferred is in a poor shape to defend itself. When working on fruit-bloom the bees are in good condition to mend up their combs rapidly. In many cases it is better to transfer about swarming time, following the plan devised by James Heddon.

Drive out the old queen and a majority of the bees into a hiving-box (almost any empty box will do) and move the old hive back a few feet, reversing the entrance. Then put on the old stand a hive filled with frames of foundation, and shake the bees down in front of it. In 21 days the worker-brood will be all hatched out in the old hive, and you may then drive out every last bee from it, and add these bees to the others on the old stand. This gives you a rousing colony that ought to store honey if there is any to store. The old combs can be melted up, and, if you wish, you can save out straight worker-comb to be fastened in frames and given to swarms.

If you want to increase the number of your colonies, a modification of the above plan might suit you still better. Wait until your colony swarms, and, after hiving it, put the swarm on the old stand, removing the old hive to a new location. This will make all the field bees from the old hive join the new swarm, and there will be little danger of a second swarm.

In 21 days from the time the swarm issues, transfer the colony from the old hive, letting it remain, of course, on the same stand which it has occupied for the last 21 days. One objection to this plan is, that if honey was coming in rapidly, there might be a good deal of it in the way.

SIZE OF BEE-HIVES.

Question: "I have ten-frame Langstroth hives. Are they too large for comb honey?"

Answer: That is one of the hard questions to answer. Opinions differ. It is pretty generally agreed that before clover harvest, it is desirable to have plenty of room for the queen to lay all she can, so there may be a strong force for the main harvest, and there are queens that need all of the ten frames. But when the time of main storing begins, there are many of our best bee-keepers who want the brood-nest contracted to a good deal smaller space. They say that ten frames is more than is needed for a brood-nest, and so a large space merely gives room for the bees to store there the nice, white honey that ought to go into the surplus apartment. The theory looks reasonable, and believing in it I practiced contraction to a radical extent, reducing the brood chamber from ten Langstroth frames down to eight, six, five and less.

I am obliged to say that I could not tell for certain whether I gained anything by such contraction. I think I got just as large crops with ten frames in the brood-chamber, but then there are so many things to be considered, the different seasons among others, that it is hard to be certain. Try it for yourself. By means of a division-board you can contract down to any number of frames you choose, and use the same supers above. At present I use eight frames all the year around, but I do not know whether it is best.

BUCKWHEAT FOR BEES.

Question: "What time do you sow buckwheat for honey, and how much seed to the acre?"

Answer: I would not sow it for honey alone. Even if I did, I would sow it at the same time as for a crop of grain. Ask any old farmer in your neighborhood the question, and he will answer it better than I. Perhaps he will tell you about the first of July, and three pecks to the acre. In any case, the Japanese is the kind to sow.—*National Stockman.*

Marengo, Ills.

The Mating of Young Queens.

W. J. DAVIS.

Query No. 819, on page 668, is no doubt a question upon which queen-breeders, if not all bee-keepers, have pondered. The question is interesting, and doubtless the querist knew that no one could give a definite answer.

There are a few reasons that lead me to believe that the queen goes a comparatively short distance from home on such occasions. That she should be compelled to mate on the wing, is to my mind, a provision against the pernicious effects of in-and-in breeding. Nature, true to herself, would not risk the existence of the colony by exposing the young queen to needless peril. She is the *one* indispensable tenant of the home. Delicate of organism, grace and beauty in every movement; while, on the other hand, thousands of drones are often found in a single colony. They are provided with strong bodies and large wings, enabling them to fly great distances to accomplish the sole purpose of their existence; I have no doubt they will fly ten miles. They care but little what particular hive they enter, and if many of them are lost, their loss is neither known nor felt by the bee-keeper, as would be the case in the loss of the queen.

During my second years' experience with the Italians, I had a black queen in an apiary five miles distant (in an air-line), mate with an Italian drone, and yet there was intervening hills and forests, and she must have mated with a drone from my home apiary, for there were no other Italian bees in this county.

Youngsville, Pa.

Wrens to Guard an Apiary.

Wrens and honey-bees live in admirable harmony on Paul W. Adams' place in Jackson township, Pennsylvania. The summer home of the confiding little birds and the industrious bees is under the broad-spreading branches of an old apple orchard near the farm-house. Mr. Adams owns 58 colonies of bees. Each colony occupies a white hive, and the hives stand in rows in the edge of the orchard. Nailed to the trunks of trees, in close proximity to the hives, are 16 little blue boxes, and each box a pair of wrens nested last summer.

A few years ago there was only one pair of wrens on the premises. Mr. Adams noticed that the wrens were pecking and tugging away at something around the edge of the bottom of one of the hives. He closely watched the actions of the cheerful little birds for awhile, and then he found that they were destroying moths. He also noticed that the bees went in and out of the hives within an inch or so of the wrens without attempting to drive them away.

On the following morning Mr. Adams made it his business to keep track of the wrens. He saw them working in the crack of another hive, and he noticed that one of the birds, after it had pulled and twisted for several seconds, backed away from the crack with a large grub in its bill. Lots of bees were crawling around on the outside of the hive, close to the wren, seemingly realizing that the little bird was doing for them what they were powerless to do for themselves. Not one of them offered to sting the wren, and the little birds worked among the bees as though they all belonged to the same family.

Mr. Adams began to encourage the wrens, and to put up boxes for them to nest in. The next season three pairs took up their abode in his boxes, and reared families there. During the second summer seven pairs made the orchard their home, and helped destroy the moths in the hives. Then he nailed up more boxes, and during the summer the orchard was enlivened by the songs of eleven pairs and their offspring. In the meantime his bees had increased from less than a score to nearly 50 colonies, and he needed all the wrens.

Last summer the wrens made themselves very useful and beneficial to Mr. Adams in an entirely different way, and of their own accord. When the first swarm of bees came out, the whole flock of wrens were flitting among the apple trees, and getting ready to go to housekeeping. They were lugging twigs and things into the little blue boxes on the tree trunks, and none of the females had begun to sit. The new swarm was an unusually large one, and when it left the hive and started to sail away through the orchard, every wren in the flock dropped its work and began to squall as though something very much out of the ordinary was about to happen.

Mr. Adams had a new hive all ready to brush the bees into, as soon as they had settled down on a limb somewhere, and he was carefully noting the course of the swarm when the commotion made by the excited wrens attracted his attention. Instead of alighting in the orchard, the bees sailed right through it and started on a straight line for the opposite side of the creek.

The wrens flew after the swarm just as it left the orchard, overtook it before it had got half way to the stream, sailed in front of it in a group, and turned its course toward Harvey Brown's place on the south. A few rods further on the birds headed the bees off again, nearly reversed the course, and drove them back to the orchard, where they alighted on an apple-tree limb. Then the wrens separated and resumed their family duties, and Mr. Adams easily hived the bees.

Whenever a swarm did not fly beyond the bounds of the orchard, the wrens made no effort to chase them. The little birds were on the alert every time a swarm came out, acting as though it was their duty to see that none of the bees were allowed to go far enough away from the orchard to get lost.

All of the females were sitting in the boxes when the next swarm tried to make for the woods. It was late in the afternoon, and the male wrens were loafing around with not much to do. They were flitting from tree to tree, but their sharp eyes caught sight of the new swarm the moment it streamed from the hive and sailed over the knoll toward Jackson Hollow, and they gathered in a bunch at once and went after the fugitive insects in a hurry. The bees took it easy, and the birds soon headed them off and kept them flying in a circle until they became tired and settled on the limb of a maple tree in the meadow. Then the birds sailed around the tree until Farmer Adams had got there with his hive, when they immediately hurried back to the orchard to look after their wives.

Mr. Adams declared that the wrens saved 5 swarms for him last year. He is very proud of his flock of wrens, and expects by next summer to have 25 pairs of the confiding little songsters making music in his orchard, and assisting him in keeping his bees from absconding.—*New York Sun.*

Honey in the Home Market, Etc.

L. B. TOLAR.

Our honey-flow in this part of the country has been cut off by too much rain. It has rained some almost every day or night for the last three weeks, yet we have had no very big rains—just enough to wash out the honey. It is the first failure for many years, so we ought not to grumble, though we would like to have had a good honey-flow.

I do not think that I will get over 2,000 pounds of honey from 120 colonies, when I ought to have gotten at least 6,000 pounds. I think I have too many bees in one place. I have now over 130 colonies. I would much like to find some good location for an apiary where I could get a better class of honey than I get here. Our honey is dark amber color, but good flavor. I would like to go where the honey is white or light-amber color, within 100 miles of Memphis, Tenn., and where there is plenty of Spanish-needle.

We have a good country here for producing honey if the quality was good, or would command a good price in the market. The flavor of our honey is good, but the color puts it down where the price is low. Our home market is what we had to rely on until the last year or so, and since then the home market has not been able to take the product, and we are forced to ship to some other market at a much lower price. If our honey was of the quality that would command a good price, I do not think I would want a better place to keep bees.

Kerrville, Tenn., May 20, 1892.

Several Seasonable Suggestions.

C. H. DIBBERN.

Take care of the unoccupied brood-combs *now*—in fact care for them all the time—never allow a hive to remain in the apiary filled with combs, to become a breeding hot-bed for the moth.

If your bees are protected by spring packing, or are in chaff hives, do not remove the packing the first warm day that comes along. Wait until it is pretty certain that summer has really come, and that the room is needed for the surplus cases.

It is the best now to "crowd on the steam," to induce the bees to build up as rapidly as possible. Should a season of scarcity happen, after fruit bloom, feed the bees, to keep up brood-rearing, as they will be the very bees that will bring in the honey harvest.

Do everything possible to make the bees prosperous, without a break, in some honey coming in from some source, even honey-dew may still be fed, before the surplus cases are put on the hives. Such feeding will pay well, even though there is plenty of honey in the hives. Bees must keep up a temperature of about 98° in order to hatch brood rapidly, and surplus room should not be given too fast. It is better to be sure, that more room is needed, by seeing the bees commence to "lie out" on warm days, than to put on the cases before the combs in the brood-chamber are all occupied, and then have a cold storm come along and chill the brood.

Save all the nice pieces of worker-comb, cut out of old sections to patch up your brood-combs with. If there are any empty hives where the bees have died out, be sure to look over the combs, and cut out all patches of drone-comb. The comb cut out of the sections are just the thing to fit into the holes. It is much better to discard all brood-combs that are not nice and straight, and fill with either good comb or foundation. A frame of foundation placed between two straight combs in a strong colony, will soon be worked into a comb that one can enjoy handling ever after. It is a question if we have not really lost by old combs that were "not just what they should be," too long. We want to save all we can, but we also want to put the bees in the very best condition, even though it costs something, as we are sure the money will be returned to us many fold in the long run.

Up to this time we have been feeding bees on honey-dew extensively. As we had many hives, where the bees had died, containing honey, we exposed them, so that a few bees could enter, and carry off the stores. We expected that this would set the bees wild, and that we would have to watch closely to prevent general robbing in the apiary. After a day or so of this kind of robbing of undefended hives, the bees seemed to conclude that there was no hurry, and worked in a very ordinary way.

We placed the hives containing the honey some little distance from the other hives, and put out about a dozen at once, which divided the bees up a good deal, and there was little or no fighting, neither were they at all cross. What surprised us still more was that hives remained unmolested in the apiary, containing plenty of honey, though there was not a bee to defend it, for days at a time. A great majority of the bees paid no attention to the food offered them, but gathered pollen, and some honey from maple, box-elder, elms, and willows. Our object is to have all the honey-dew used up, before the clover begins to bloom.—*Western Plowman.*

Milan, Ills., May 15, 1892.

The Feeding of Bees.

L. HARRISON.

I fed them last fall until I thought they had an abundance to last until there would be plenty in the fields. It stopped raining, and I laid aside my pen to take a look at the bees, when I was convinced that I had better "hustle around" and feed instanter. Coffee A sugar was dissolved with boiling water, and all sorts of feeders were pressed into service. Fruit jars with perforated covers, tin basins with muslin tied over the top, tin and wooden feeders that are sold by dealers in bee-supplies, were filled and given to the bees. I was compelled, by rain, to adjourn and go into the house, and if I am able in the morning I shall feed every colony. So much rain washes out the nectar from fruit-bloom, and prevents the bees from gathering what there is. It is not so particular what kind of syrup is fed now as during the fall for winter food. Some bee-keepers have reported good success in feeding sorghum and maple sugar in the spring when bees can fly.

It is a shame to let the bees starve now when a little sugar could tide them over until they are able to make their living. They may have had plenty two weeks ago, but be destitute now, as they consume food rapidly while rearing brood, for an insect in the larval state consumes more food than during the remainder of its existence.—*The Prairie Farmer.*

When You Have any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time.

CONVENTION DIRECTORY.

Time and place of meeting.

1892.
Sept. 7, 8.—Nebraska, at Lincoln, Nebr.
L. D. Stilson, Sec., York, Nebr.

Oct. 7.—Utah, at Salt Lake City, Utah.
John C. Swaner, Sec., Salt Lake City, Utah.

1893.
Jan. 13, 14.—S.W.Wisconsin, at Boscobel,Wis.
Benj. E. Rice, Sec., Boscobel, Wis.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—The Editor.

North American Bee-Keepers' Association

President—Eugene Secor..Forest City, Iowa.
Secretary—W. Z. Hutchinson....Flint, Mich.

National Bee-Keepers' Union.

President—James Heddon ..Dowagiac, Mich.
Sec'y and Manager—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

A Rain-Preventer Needed.

Uncle Jerry Rusk has thrown a wet blanket on bee-keeping. The man who can invent a good, warranted rain-preventer, and get it into working order within a day or two, has a number of millions awaiting him. To-day it is cold and rainy with prospects of snow. Five inches of snow was reported at Troy, N. Y., to-day. It has been so cold and rainy all spring, that the bees have done nothing. J. W. Tefft.

Buffalo, N. Y., May 20, 1892.

Marketing Honey—Wintering.

I see by the Bee Journal that a good many advocate selling honey in the home market. I have always had better luck in shipping my honey to commission men then selling at home. I am only about 15 miles south of Saginaw, and I have sold some honey in that market at 10 cents for dark, and 12 cents for white honey. Two years ago I shipped all of my honey to a commission house, and got 15 cents for dark, and 17 cents for white. Bees have wintered poorly here in this locality the past winter, that is, all of those that were not properly taken care of last fall. I put 21 colonies into winter quarters, had one colony stolen in the winter, and have 7 left—4 good and 3 weak ones. I have always been successful in wintering before, as I have either put them in the cellar or packed them with chaff. Wm. Craig.

Luce, Mich., May 19, 1892.

Cold and Rainy Weather.

Bees have fared hard here this spring. It has been cold and very windy; thousands of bees have gone from the hives to come back no more. Apple-trees are in bud, but have not bloomed any yet, and it is cold and rainy, but they have lots of stores. We hope for warmer weather, and a good honey-flow yet. Ira J. Wood.

Vernon Centre, N. Y., May 22, 1892.

No Pleasant Weather to Spare.

We do not know what the harvest will be, but we have no pleasant weather to spare for Minnesota. We are all "in the swim" from Pennsylvania to Colorado. The last of March our bees were in better condition than usual at that time; since then the weak and queenless ones have perished, and the others are striving to hold their own. We are not discouraged yet, but it makes us feel our dependence upon a higher power; "and, having done all, to stand." A. C. Bugbee.

Lochiel, Ind., May 20, 1892.

Wintering Bees in Minnesota.

The sun is once more shining, and it makes us feel good; and so say the bees. I have hardly a corporal's guard left—13 colonies out of 50; and where I had good colonies a week ago, to-day there are no bees left. We have had over 3 inches of rainfall the past week, and an inch of snow, with a 40-mile north wind blowing. I will have about 8 to 10 colonies left, if we get good weather soon. Mr. Snow told me this morning that he had only 36 left out of 125. I presume the following will explain the cause for a part of my bad luck: I put my bees into the cellar too late last fall, as I was very busy, and I ought to have raised the hives from the bottom-board 2 inches, but did not. They wintered all right until the last of January, when we had lots of warm weather, and they became uneasy, and consumed lots of honey. Then I took the bees out of the cellar about April 15, and I should have left them in until the 21st of May. Mr. T. C. Kelley thinks that out-door wintering is best. I would prefer out-door wintering in Pennsylvania, where the mercury seldom gets below 18° below zero. Here in Minnesota it has been down to 52° below zero, but of course the atmosphere is very dry, and we don't notice it at all at 20° below, when there is no wind. You see this is a large country, and what will do in Pennsylvania or Florida won't do in Minnesota, Dakota or Wisconsin. I have lots of good hives filled with comb and honey, to give my young bees, if I have any. I see some young bees and drones.

MARK D. JUDKINS.

Osakis, Minn., May 21, 1892.

Salvage from the Wreck.

There are a great many substantial blessings connected with bee-keeping. To be sure, I have lost 200 colonies out of 300, fall count, but then it will be much easier to mow the bee-yard now, than with the hives so thick around. I won't have to spend a lot of money on bee-supplies, and I have my hives left! The queens are all "out on a strike," and practically no brood is being reared. It is very wet, but when the sun shines the weak colonies desert their hives about as fast as one man wants to carry the deserted boxes into the honey-house.

B. H. STANDISH.

Evansville, Wis., May 20, 1892.

Stealing Eggs to Rear Queens.

Do queenless colonies of bees ever go into neighboring hives and get eggs to rear for themselves a queen? Last season I had 2 colonies of black bees; in August I procured an Italian queen, and introduced her into one of them with success. They bred up finely during the fall. I examined them yesterday, and could find no queen and no brood or eggs, with the exception of two queen-cells capped over (another in process of construction), one of which I picked out, and it contained the lava of a young queen. I could see no possible way for them to get the eggs but by going to the other hive, which was about 4 feet distant. Would you advise letting this colony of bees remain and see if they get a queen from the cell they have? or had I better procure a queen immediately for them? I have quite a curiosity to find out if they can re-queen themselves in the way they seem to be doing. I presume I should have time to get them a queen after finding out whether they have succeeded or not in their effort.

GEO. E. FELLOWS.

Salisbury, N. H., May 16, 1892.

[We have never heard of such a thing as bees going into other hives and taking away eggs. They must have come in some more natural way. Yes; by all means we would let the colony do anything the bees choose to, and watch results. There will be time enough to get a queen for them after they have failed to rear one.—EDS.]

Unfavorable Weather for Bees.

Last fall I put in 48 colonies of bees, and when I took them out there were only 20 colonies; now I have only 10. Some starved with plenty of stores, but I think the trouble was that when I put them into the cellar they had no young bees, and did not have any last October. It was a poor year here for the bees in this locality; and there was no honey last fall for them to gather. We have had awfully wet and cold weather this spring. I like the BEE JOURNAL very much.

B. M. SAVAGE.

Independence, Iowa, May 20, 1892.

Bee-Keeping in Tennessee.

In answer to many letters which I have received, inquiring as to the prospects and chances for bee-culture in this part of the country, I will say that I believe this to be as good as the best, besides being a very healthy climate. My hives, which have 11 frames 12¾x8½ inches, are all chock-full of bees. I use a top section-case, which contains 33 one-pound sections. I have quite a lot of hives with the sections full of honey, and nearly all capped ready to come off. As to color, our early spring honey is of a bright yellow, the most of which is gathered from black locust and poplar, although the woods is full of various other flowers. Our linden begins to bloom about June 5, and lasts for quite awhile, and the honey is of a beautiful white, from about June 5 until July 20, which time is our best honey flow; although I had some hives with 27 one-pound sections, which I emptied on July 20, that were afterwards nicely filled. Our late honey is bright yellow, or straw color, gathered from sour-wood and sumac. My neighbor, Mr. F. A. Tate, says that his bees averaged 80 one-pound sections of honey the past season, though they are blacks. My average was 70 pounds per colony, but I had some that stored over 100 pounds of comb honey. I now have all my bees in frame hives. I will say from experience, give me the Italian bees for gentleness and industry.

W. M. SCRUGGS.
Tracy City, Tenn., May 21, 1892.

Bee-Keeping in Florida.

Florida is not first in the ranks of honey-production, though a land of flowers. As we have a very warm climate, I winter my bees on the summer stands in single-walled hives, and I am quite successful in that way. We have varieties of honey-yielding plants and trees growing wild, and our honey-flow begins in February. Fruit bloom, maple, orange, ti-ti, haw, wild plum, poplar, jessamine, and many other plants, last usually until June. My bees wintered well, and came out early this spring. I began extracting honey on April 27, and one colony's combs weighed 63 pounds before extracting. The worst enemy I find of my bees is March winds. The bees seem to want honey more than their hives, and upon filing out they find it, and, returning heavily ladened, fall at the entrance of the hive on the ground and chill, and are never able to recover again. My bees swarmed on March 21, and I generally get surplus honey from such colonies. I think the season will hold out well this year, and a good crop be obtained. Good crops and good quality bring good money and good feelings.

J. B. HALLEY.
Blountstown, Fla., April 29, 1892.

"Taking the Cake" on Wintering.

On page 678 Mr. M. F. Cram, of West Brookfield, Vt., claims that he "can take the cake" on wintering bees. Well, give him my share. But I would like to know what kind of bees he has. They are certainly something new, or are they the kind we used to find in the meadows when harvesting—often found in mouse-nests. Those never breed until May or June. He says they were put into winter quarters on Nov. 16, and at the date he wrote, May 9, 1892, he says: "To-day I have taken them from the cellar, all alive and well." The time between these two dates just lacks seven days of six months, yet he claims they are the strongest he has ever had, and those that he has opened had no brood on May 9. I have Italians, one colony of Carniolans, some blacks, and some hybrids, but my bees were breeding in the latter part of January, and have continued to do so ever since. If they had not commenced to breed before the first of May, I would have given up all hopes of any honey this season, as I would think the bees would be like myself—a little too old to do very much. I hope if Mr. Cram reads this he will accept it as it is given—in the spirit of friendly criticism.

T. C. KELLY.
Slippery Rock, Pa., May 22, 1892.

Wavelets of News.

Cyprian Bees.

Excellent honey-gathering bees have been introduced from Cyprus. When the Venetians owned the island, 200,000 hives of bees were kept there. People used honey for sugar in those days. Now there are only 30,000 hives of bees owing to oppressive taxes levied upon the industry by the Turks. The residents are usually unwilling to sell any of their bees, believing that those left behind will fly away after the ones which are disposed of. Accordingly, the purchaser is commonly obliged to buy 50 colonies in order to secure 50 queens. This is apt to be a bore. Mr. Benton found it so on one occasion when he tried to carry a number of earthenware hives across the country on muleback. Some of the hives got broken by an accident, the bees attacked the mules, and Mr. Benton was badly stung. If he had not been thoroughly inoculated with bee poison in moderate doses during previous years, he would undoubtedly have died.—*Washington Star, D. C.*

Introducing Queens.

There is always some risk to run, in introducing queens, except the method of taking a few combs of hatching brood with no bees at all, and putting them in a tight box with the queen. Young bees will hatch out and will not attempt to sting or ball the queen. Some of the brood will perish by this method, as there are no bees in the hive old enough to take care of it.

Another good way, and one that almost always proves successful, is to make a cage or basket out of fine wire cloth large enough to hold one brood-comb, being careful not to have any place where the queen can get fast and die, or get disabled in any way. Place a comb of hatching brood in the basket with the queen; shake every bee from the comb before putting it in the basket; close the basket tight so no bee can get in or out.

Hang the basket in the hive in which you wish to introduce the queen; the young bees will be hatching out all the time, and the queen will lay in every vacant cell. In a few days liberate the queen and the bees in the basket. Usually there will be no danger of the queen being killed. Always be sure to have the hive queenless before attempting to introduce a queen. If the bees should from any reason kill the queen, they will have plenty of eggs of her laying to construct queen-cells and rear young queens from. You can make nuclei, and give each one of the queen-cells, and thus renew the stock in your apiary.

This method has some advantage over the one usually practiced by introducing the queen in the small cage she is shipped in. There are always eggs of her laying in the comb to rear other queens from. There should be some honey in the comb that is put in the basket, for the queen and young bees to subsist on.—E. S. Mead, in *Ohio Farmer.*

Objections to Grading Honey.

There has been brought against the grading of honey the objection that it would produce a sameness, and remove that incentive to excel that ought to accompany all pursuits. If there is a grade requiring perfection, as I think there ought to be, this objection will not hold good.

Another objection is, that different persons would grade the same honey differently, even when working by the same rules. There probably would be minor differences, but the grading would be much more uniform than when no general rule was followed.

It has also been said that if there were rules for grading that there must be an inspector in each market; and that the inspector and the middle man would combine to "beat" the producer. I think no inspector would be needed. These rules would be a sort of agreement among ourselves, indicating what we mean by certain grades. When a dealer quoted honey of a certain grade, at a certain price, every producer and purchaser would know exactly what was meant.

Where the producer takes a sample of his honey to dealers and sells direct to them, there is not so much need of a set of rules, but they would be a convenience, even then, while I think it is true that the great bulk of honey is sold without the producer ever seeing the purchaser.

I still believe that a set of rules can be formulated that will be sufficiently concise, yet broad enough to cover the needs of the entire country, and that such rules would be a great convenience. —*Bee-Keepers' Review.*

Mind-Destroying Literature.

Every great blessing has its attendant evils. The printing press and the improved processes of illustration are great aids to the spread of knowledge, but unfortunately they can just as effectually aid in the distribution of literature that is unwholesome and damaging to the mind.

The worst dangerous for of literature is not that which is openly immoral, because that can be reached by law and suppressed. It is the sensational, sloppy stuff that is flooding the land and ruining young minds by giving them false ideas of life.

As there seems to be no way to prevent the publication of this trash, and nothing can be done to restrict its circulation, the only thing that parents can do is to keep it out of the hands of the children.

But in destroying the unwholesome, they should be careful to furnish a plentiful supply of the wholesome. There are plenty of good books and papers, and the prices at which they are furnished places them within the reach of all. You would not give your horses food that would weaken their muscles and render them unserviceable. Be as good to your boys and girls.—*Western Plowman.*

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the Bee Journal. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

AMERICAN
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OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

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GEORGE W. YORK & CO.,
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Special Notices.

The Date on the wrapper-label of this paper indicates the end of the month to which you have paid for the JOURNAL. If that is past, please send us one dollar to pay for another year.

◆

The Premiums which we give for securing new subscribers to the AMERICAN BEE JOURNAL, are intended as pay for *work done* in getting new names among your friends and acquaintances, and are not offered to those who send in *their own* names as new subscribers, unless such name or names form a part of a club of at least three subscribers.

The Convention Hand-Book is very convenient at Bee-Conventions. It contains a Manual of Parliamentary Law and Rules of Order for Local Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with subjects for discussion, and about 50 blank pages, to make notes upon. It is bound in cloth, and of the right size for the pocket. We will present a copy for one new subscriber to the BEE JOURNAL, with $1.00.

◆

An Apiary Register is a splendid book to have in an apiary, so as to know all about any colony of bees at a moment's notice. It devotes two pages to each colony. We will send one large enough for 50 colonies, for $1.00, postpaid; for 100 colonies, for $1.25; or for 200 colonies, for $1.50. After using it for one season, you would not do without it.

◆

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a nice, 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25 cents, or will be given for one new subscriber, with $1.

◆

A Binder for preserving the copies of the AMERICAN BEE JOURNAL as it arrives from week to week, is very convenient. You should have one, as it is so handy for reference from time to time. We mail it for only 50 cents, or will give it as a premium for two new subscribers, with $2.00.

◆

When Talking About Bees to your friend or neighbor, you will oblige us by commending the BEE JOURNAL to him, and taking his subscription to send with your renewal. For this work we offer some excellent premiums that you ought to take advantage of.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club.*
The American Bee Journal	$1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	2 00	1 75
The Apiculturist	1 75	1 65
Canadian Bee Journal	2 00	1 75
American Bee-Keeper	1 50	1 40
Nebraska Bee-Keeper	1 50	1 35
The 8 above-named papers	6 25	5 25
and Langstroth Revised (Dadant)	2 40	2 25
Cook's Manual (1887 edition)	2 25	2 00
Quinby's New Bee-Keeping	2 50	2 25
Doolittle on Queen-Rearing	2 00	1 65
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 50	1 40
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
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Western World Guide	1 50	1 30
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Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

Almost Every Bee-Book that is now published we mention on the second page of this issue of the BEE JOURNAL. Look over the list and select what you want. For every new yearly subscriber that you secure for us at $1.00, we will allow you 25 cents, to apply on the purchase of any book we have for sale. This is a rare chance to get some valuable apicultural reading-matter, and at the same time aid in spreading helpful apiarian knowledge among our friends.

A Nice Pocket Dictionary we offer as a premium for sending us *only one new* subscriber with $1.00. It is a splendid little Dictionary—and just right for the pocket.

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The Globe Bee-Veil, which we offer on the third page of this number of the BEE JOURNAL, is just the thing. You can get it for sending us only three new subscribers, with $3.00.

Subscribers who do not receive their BEE JOURNALS promptly, should notify us at once, before the edition is exhausted.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line**, for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

WANTED—Five Hundred Apiarists to try my PURE ITALIAN QUEENS at one dollar each. Now ready. Satisfaction guaranteed.

H. M. STEPHENS,
21A4t Munden, Republic Co., Kan.

WANTED—Twenty-five cents for a Pair of my Patent Standing Hive Clamps. Special prices on 100.

ERNEST GUNN,
23A1t Wall Lake, Sac Co., Iowa.

HONEY AND BEESWAX MARKET.

CHICAGO, May 28.—Fancy comb honey is selling at 16c.; choice, 14@15c. Other grades 10@13c. Extracted, scarce, good demand, at 7@7½c. Beeswax, active sale, 28c.
S. T. FISH & CO., 189 S. Water St.

NEW YORK, May 28.—No demand for comb honey excepting fancy white. Quite a stock on the market of off grades and buckwheat. New Southern extracted arriving and sells at from 70@75c. per gallon for choice; 65@70c. for common. Beeswax quiet but firm at 27@29
HILDRETH BROS. & SEGELKEN,
28-30 West Broadway.

KANSAS CITY, Mo., May 28—Demand light, supply large. Prices: No. 1 white comb, 13@14c.: No, 2 white, 10@12c. Extracted, white, 6@7c.; amber, 6@6½c.; dark, 5c. Beeswax—Demand good, supply light. Price, 22@27c.
CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI, May 28—Demand is slow for comb with good supply. Price, 12@15c. Demand for extracted is fair at 5@8c.

Beeswax is in good demand, at 25@27c for good to choice yellow.
C. F. MUTH & SON,
Cor. Freeman & Central Aves.

NEW YORK, May 28—Demand for honey is very moderate, supply good, exceeding the demand. There is little demand for fancy 1-lbs. Market pretty well cleaned up of that grade, but plenty of fair. Prices: Comb, clover, 8@12c.; buckwheat, 7@9c. Extracted, clover, 6½@7c.; buckwheat, 5½@6c. Beeswax—Demand fair, supply plenty for demand, at 27@29
CHAS. ISRAEL & BROS., 110 Hudson St.

KANSAS CITY, Mo., May 28—Demand poor, supply light of comb. Fancy 1-lbs., 12@13c.; dark, 8@9c. Extracted, white, 7c.; dark, 5@6 No beeswax on the market.
HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, May 28.—The demand is slow, and supply fair, and will be absorbed by time new crop comes. Comb, 11@12½c. Extracted, 7@8c. Beeswax—Demand moderate, supply fair; price, 27@28c.
M. H. HUNT, Bell Branch, Mich.

CHICAGO, May 28.—Demand fair and supply short on fancy stock. Comb, 14@15c. Extracted, slow sale at 6@7c. Beeswax—Demand good, supply short on prime yellow; price, 25@28c.
J. A. LAMON, 44-46 S. Water St.

MILWAUKEE, May 28—Demand very moderate, supply average of all grades but common quality. Best 1-lbs. 15@16c; common, 12@13c. Extracted, white, in barrels, 7c.; in kegs, 7½c; in pails, 7½@8c. Beeswax—demand fair, supply small. Price, 23@28c.
A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO, May 28.—Demand light, supply light. Comb, 10@12c. Extracted, 5@6¼c. Beeswax — Demand fair, supply light. Price, 25@27c. A fair to good honey crop for 1892 is expected.
SCHACHT, LEMCKE & STEINER,
16 Drumm Street.

NEW YORK, May 28—Demand is light, and supply large, except buckwheat comb. We quote: Fancy white comb, 12@14c; buckwheat, 9@11c. Extracted—Clover and basswood in good demand at 6½@7c; buckwheat ind emand at 5@6c. Beeswax in fair demand at 26@28c.
F. I. SAGE & SON, 183 Reade St.

CHICAGO, May 28. — Demand is slow, supply fair, but not excessive, and market should clean up. Prices: Comb, 15c. is about the top. Extracted, 6, 7@8c.; supply small. Beeswax —Demand good, supply better than last season. Price, 27c. for yellow.
R. A. BURNETT, 161 S. Water St.

BOSTON, May 28.—Demand is light, supply fair. We quote: 1-℔. fancy white comb, 13@15c; extracted, 6@7c. Beeswax—Demand fair, supply light. Price, 28c.
BLAKE & RIPLEY, 57 Chatham St.

MINNEAPOLIS, MINN., May 28—Demand is moderate, supply of dark is large, but white is not so plentiful. Prices: Dark comb, 10@13c.; white, 15@17c. Extracted, supply plenty. Beeswax—Demand good, supply small.
STEWART & ELLIOTT.

ALBANY, N. Y., May 28.—Demand is very little for comb at 8@12c. Market quiet. Extracted, 6@7c. Beeswax in good demand at 28@30c. for good stock.
H. R. WRIGHT, 326-328 Broadway.

NEW YORK, May 28.— Demand moderate, and supply reduced, with no more glassed 1-℔ nor paper cartons, 1-℔. We quote: Comb, 1-℔, 14@15c. Extracted—Basswood, 7¼@7½c; buckwheat, 5½@6¼; Mangrove, 68@75c per gal. Good demand for dark extracted honey. Beeswax, in fair supply, with small demand, at 26@27c.
F. G. STROHMEYER & CO., 120 Pearl St.

Wintter Problem in Bee-Keeping; by G. R. Pierce, of Iowa, who has had 25 years' experience in bee-keeping, and for the past 5 years has devoted all his time and energies to the pursuit. Price, 50 cents. For sale at this office.

We Club the AMERICAN BEE JOURNAL and the monthly "Illustrated Home Journal" one year for $1.35; or both of these Journals and the semi-monthly "Gleanings in Bee-Culture," for one year, for $2.10.

The Honey-Bee; giving Its Natural History, Anatomy and Physiology. By T. W. Cowan, editor of the *British Bee Journal*, 72 figures, and 136 illustrations. $1.00. For sale at this office.

The Amateur Bee-Keeper, by J. W. Rouse, is a book of 52 pages, intended, as its name indicates, for beginners. Price, 25 cents. For sale at this office.

The Busy Bees, and How to Manage Them, by W. S. Pouder. Price 10 cents. For sale at this office.

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THOMAS G. NEWMAN, } EDITORS.
GEORGE W. YORK, }

Vol. XXIX. June 9, 1892. No. 24.

Editorial Buzzings.

"**Delicious** month of June!
When winds and birds all sing in tune;
When in the meadows swarm the bees
And hum their drowsy melodies,
While pillaging the buttercup,
To store the golden honey up."

◆

Geo. Poindexter, of Kenney, Ills., one of the oldest readers and friends of the AMERICAN BEE JOURNAL, is sorrow-stricken by reason of the death of his loved and loving wife. He writes these tender words when informing us of his sad loss: "She always greeted me at the door with a loving smile and a kind word. She was a loving wife, good, kind and forgiving." We extend to our bereaved friend and brother our most heartfelt sympathy, in this time of his sore affliction. It is hard, sometimes, to say, "Thy will be done."

Dr. Miller must have enjoyed "nutting excursions" when a boy, or at least cracking and eating nuts on pleasant winter evenings, if we may judge by the way he throws out "nuts to crack" at conventions, and even in his writings. We find this "stray" "nut" among his "Straws" in *Gleanings:*

> Is the thorax of a laying queen any larger than it was when she was a virgin? Who can tell us? For it's the thorax, isn't it, and not the abdomen, that prevents a queen from going through an excluder? Bro. Larrabee, there's a nut to crack.

As "Bro. Larrabee" is now in the "nut-cracking" business at the Michigan Agricultural College apiary, Dr. Miller will likely receive both the "kernel" and the "shuck" very soon. Of course, we can almost imagine we hear the Doctor saying just now: "I don't know!"

◆

The First Annual Report of the Illinois State Bee-Keepers' Association is received. It is a nicely printed pamphlet of nearly 200 pages, published by the State of Illinois. Besides a full report of the meeting of the Illinois State Bee-Keepers' Association, it contains much information about the National Bee-Keepers' Union and its work, and also 14 or 15 pages of general instructions and information about bees and bee-keeping. It is very interesting throughout, and the Secretary, Mr. Jas. A. Stone, is to be congratulated upon the production of such a complete and interesting report. We may have more to say concerning it after having had time for a thorough examination of of its contents.

◆

Some did not quite comprehend the notice of sale in last week's BEE JOURNAL. Thomas G. Newman & Son have *not* disposed of the Bee-Keepers' Supply Business or the *Home Journal.* Both will be continued as heretofore, at the same location as before, 199 East Randolph St., Chicago, Ills.

The Apiarian Exhibit at the coming World's Fair from now on will attract the attention of every one interested in bee-keeping. As promised last week, we present below Dr. Mason's letter descriptive of various interesting points in connection with the proposed exhibit of apiarian products. We commend to all what the good Doctor has to say, and trust that it may receive a very careful reading. Here is his letter :

TO AMERICAN BEE-KEEPERS :

Since the appointment of the committee by the North American Bee-Keepers' Association at Albany, N. Y., last winter, to be the representative of the Association in matters relating to the interests of bee-keepers at the World's Columbian Exposition, all has been done that could be done by the committee and the Exposition Managers to put things in shape for bee-keepers ; although it has seemed that the same might have been accomplished in less time.

Mr. Buchanan, the Chief of the Agricultural Department, has done, and will do, all he can to aid us, and by his invitation I have twice been to Chicago to consult with him and Mr. Newman in regard to the Apiarian Exhibit, and on Thursday, May 19, the plan was mapped out and mutually agreed upon.

Several of our fraternity have urged the appointment of a Superintendent for our department, but as yet no appointment has been made, and the same is true of the other departments, and none will be made at present in any department. I believe Mr. Buchanan will look after our interests the same as he does after that of the other departments over which he is chief. In the meantime, let all who desire information that they do not get from the bee-periodicals, address "W. I. Buchanan, Chicago, Ills., Chief of Department of Agriculture, World's Columbian Exposition."

The plan outlined is for all honey and beeswax to be exhibited in glass cases, which are to be 5 feet wide and 6 feet high above the platform on which the cases rest, the platform being 18 inches high.

The exhibit will be by States, each State occupying as much of the cases in length as may be needed, all the exhibits being grouped in one locality.

Mr. Buchanan will submit the plan to the commissioners of the different States, and ask them to put the preparing and making the exhibit in the hands of their respective State bee-keepers' societies, and I would like to URGE upon the State bee-keepers' societies the importance of *at once* putting themselves in communication with their State commissioners, either by correspondence or by personally meeting with them when in session, and ask them for instructions.

Of course it is expected that the commissioners will provide for and pay all expenses ; and it seems to me that unless the commissioners are made to understand the needs of our specialty better than do those of Wisconsin (that appropriated $500 for their apiarian exhibit), that bee-keepers will not make much of a display of the products of the apiary. Not many will furnish honey or wax and pay all expenses, for glory alone, and not many will feel inclined to do the work of getting things together and putting them in shape and place "just for the fun of the thing."

It is not intended to see how large or much of a display can be made by each State, but to make as *fine a representative display in as small a space as possible* ; so let those having charge of preparing the exhibits have as much of a variety as possible, and have everything of the very best representative qualities, and put in the best and most attractive shape.

Every package will have to be labeled with the owner's name, address, and kind of honey. Application for space will be made through those having charge of the different State exhibits. If this is not made plainer by what Chief Buchanan may publish, I will explain more fully in a future article.

What I said in an essay read at the meeting of the Michigan State Bee-Keepers' Society at Detroit in January, 1891, has met with the (so far as expressed) universal approval of bee-keepers.

No premiums will be paid for exhibits by the Exposition, unless in Medals or Diplomas, so that the expense will have to be provided by the State Commissioners.

I shall be glad to answer any inquiries that may be made of me, either by letter or through the bee-papers, and if an answer by letter is desired, I shall not refuse to use "stamp enclosed for reply." I don't get stamps at reduced rates because I have charge of a post-office. A. B. Mason.

Auburndale, Ohio, May 27, 1892.

Bee-Lawsuits are bound to become very unpopular, if we may judge by the way those who threaten to pester bee-keepers decide not to do so when they hear that there is a vigorous Bee-Keepers' Union that is ready to defend its members when unjustly attacked. On page 570 we called attention to a threatened persecution of Mr. H. D. Davis, of Bradford, Vt., who, in a lengthy letter, portrayed what seemed likely to prove a calamity to him, should the village authorities endeavor to compel him to move his bees.

In another letter received recently, Mr. Davis seems to have "come out on top," in his trouble with malicious neighbors. He says:

> The clause, "including honey-bees under the rules of nuisances, if they can be proven such to the general public," was inserted in the village by-laws at the village meeting on April 20, as I expected it would be. There were but about 15 persons present, and only 5 voted on the motion—those being the neighbor I mentioned previously, his hired man, and three friends of his.
>
> There was no opposition made except by my attorney, who warned them that they were only drifting into a lawsuit, and that there had been cases of this nature carried up to the Supreme Courts where the corporations were defeated.
>
> One of the village trustees told me a few days ago, laughingly, that I "had heard the last of the matter." They found I had no idea of not defending myself, and I think they were somewhat taken back to learn of the Supreme Court decisions, and the work done by the Bee-Keepers' Union.
>
> In my former letter I omitted to state that I have had bees on my premises all the time for the past 13 years, and have never had any formal complaint of their being a nuisance. I might quote the words of the neighbor who lived nearest the bee-yard (but died last fall), who, when asked if the bees were not a nuisance to him, said: "No. As long as I mind my own business, they never trouble me."
>
> I wish to thank the Bee-Keepers' Union for the interest taken, and moral support given, in my behalf.
>
> H. D. Davis.

After reading the correspondence and comments on page 570, and then the foregoing letter, who will now say that the Bee-Keepers' Union is not a veritable "Gideon's band," when it comes to routing boastful enemies? Bee-keepers do not half realize what a grand bulwark of defense is the Union, or they would rally to its standard by the thousands instead of by hundreds. Why, the moral support and influence of such an organization is of untold value to its members!

In view of the liability of any bee-keeper being threatened, as was Mr. Davis, it behooves all, who care to maintain their rights with the least possible expense and trouble, to join the Bee-Keepers' Union, and thus not only be prepared for unforeseen malicious persecution, but aid in forming such a "Grand Army" of noble defenders of the pursuit, as shall command victory in advance of a serious engagement.

◆

Flowers are God's diamonds, the beauty of which attracts the attention of mankind universally. Their presence made the paradise of our innocent childhood, while some of the happiest days of our matured manhood were spent in the company of those who loved amid the shady bowers and climbing flowers of the cottage garden. How frequently has a single flower, in the hand of a friend, brought solace and pleasure to the weary sufferer; and when decrepit age shall mark our tottering footsteps, may the lovely flowers be near by as a precious emblem, to remind us of the eternal spring-time beyond the great river of death.—*Exchange.*

◆

Prof. A. J. Cook, who is so constantly interested in everything touching upon the advancement of apiculture in this country, writes very entertainingly in an article for *Gleanings*, on apicultural experiments, which we copy on page 764. It is both historical and suggestive, and no doubt will be read with much interest.

Johnny-Cake Bee-Feeders, we should think, would be something new under the sun. Rev. James Andrews, of Red House, N. Y., in *Gleanings* for June 1, says that a friend of his, who has 150 colonies of bees, "bakes johnny-cakes, 2 inches thick; splits them in the middle; soaks with sugar syrup; puts them in front of the hives, and the bees carry off syrup, johnny-cake, and all, into their hives." This is certainly a new use for johnny-cake, and evidently the bees that use it "take the cake," and no mistake about it.

◆

Mr. C. J. Robinson, of Richford, N. Y., who has an article in this number on the subject of foul brood, is writing a series of articles on the "Management of Bees," for the *American Farmer*, one of the oldest agricultural periodicals published in the United States. The readers of that paper will be well repaid for the time spent in studying the articles written by the graphic and practical pen of Mr. Robinson.

◆

To Use Old Sections, especially if soiled and much propolized, will not pay any bee-keeper who expects to command anything like a fair price for his honey. It is a disgrace to have fine white honey stored in sections that have become stained and maimed with age and careless handling. Mr. C. H. Dibbern, that tireless toiler for the production of the very best in the line of marketable honey, writes thus in the *Western Plowman* upon this matter:

> As we have had several poor years when many sections have been on the hives all summer, only to be removed in the fall, stained and propolized, it is likely many will be tempted to use such sections, to have filled with the nice honey that we expect to get this year.
>
> If intended for market, it is poor policy, as it is discounting the crop in advance. Sections are cheap, the old comb or foundation rendered into wax, will usually pay for new foundation, and the time saved in scraping the old sections will much more than pay for the new sections. Why, then, use the old, soiled sections, and have a sorry looking lot of honey to work off at a reduced price in the fall?

◆

The Initial Number of the *National Bee Gazette* copied a last year's advertisement of the W. T. Falconer Manufacturing Co., Jamestown, N. Y., in which the company offer 5 per cent. discount on all goods. This advertisement (no doubt intended as a favor), we were informed by the company, was inserted without authority, and, therefore, it causes them a good deal of annoyance, because they are not now offering any discount on their good . By the way, it is a rather bad idea to insert an advertisement, free or otherwise, without first consulting the parties in question.—*Gleanings*.

◆

Did You Know that "a lie never stops to put its hat on?" That "Wiley lie" about manufactured comb honey is still rushing around *bare-headed*; and if it isn't *bald-headed* soon, it won't be the BEE JOURNAL'S fault, for we whack it every chance we get! It is dying hard—from exhaustion and prospective heart-failure!

◆

Injurious Insects cause a surprisingly large amount of loss of food crops, when we think of the estimate which is placed at the sum of $500,000,000 per annum. What an enormous field is this for the entomologists to illustrate their ability to cope with such an army of destroyers!

◆

The Nebraska State Fair Premium List for 1892 is on our desk. We will publish the list of premiums as offered, next week. They are many and liberal. Mr. E. Whitcomb, of Friend, Nebr., is the Superintendent of the bee-department. For any general information about the Fair, which will be held Sept. 2nd to 9th, address Mr. Robt. W. Furnas, Brownville, Nebr.

Queries and Replies.

Tank for Storing Extracted Honey.

QUERY 822.—1. What is the best kind of a honey-tank for storing and ripening extracted-honey? 2. Will a wooden tank do? 3. If so, what kind of wood is best?—Wisconsin.

1. Tin.—DADANT & SON.

1. Cypress wood.—J. P. H. BROWN.

1. I have always used tin.—MRS. J. N. HEATER.

1. I should say metal—probably tin—every time.—EUGENE SECOR.

1. I prefer a shallow tin tank. 2. I think wood would answer.—A. J. COOK.

Some kind of metal not easily affected by the acid in the honey.—C. C. MILLER.

I would say I do not know, to all these questions.—J. M. HAMBAUGH.

1. I prefer stone jars. 2. A wooden tank will do. 3. Oak, as I think.—M. MAHIN.

1. One made of tin. 2. Yes. 3. Such kind as will not flavor the honey; as pine is liable to do.—A. B. MASON.

1. I do not know. 2. I should think that a hard-wood tank would be as good as any.—C. H. DIBBERN.

I have had but little experience in ripening honey. I prefer to let the bees do it. I use tin, with good results.—H. D. CUTTING.

Metal; tin, probably, is as good as anything. Large stone jars are also good. I would not recommend wood.—MRS. L. HARRISON.

Any kind of wood will do for a tank for storing honey, if it is coated with paraffine or beeswax. If possible, ripen your honey in the hive.—P. H. ELWOOD.

1. I use tin cans. 2. Yes, if you can keep it from leaking. 3. White ash is the only kind here that will not leak.—G. M. DOOLITTLE.

Wood does well enough for shipping in, but I should not want a wooden tank to be used repeatedly for storing. I prefer heavy tin tanks.—R. L. TAYLOR.

I do not know. I wish I did; that is, I wish I knew how to ripen this extracted honey, so as to make a first-class article of it. I am in hopes that some one will tell.—E. FRANCE.

Tin is much to be preferred to wood for storing honey. If I used wood, I would want to coat it well with paraffine, using it hot, so that the pores of the wood would be filled with it.—JAMES A. GREEN.

1. I do not know. 2. I should think that a wooden tank, properly made, would do. 3. I would use wood that would not taint the honey, such as basswood, cypress or cedar.—MRS. JENNIE ATCHLEY.

One-gallon stone crocks, piled up with sticks between, so that air can freely circulate over the top of every jar of honey. I used 400 crocks that way for several years, about 15 years ago, and wrote up the results at the time.—JAMES HEDDON.

1. Much depends; but do not use one lined with galvanized-iron. Large earthen crocks are as good as anything. 2. Yes, if made perfectly tight. 3. Any close-grained wood will answer the purpose well.—J. E. POND.

Why extract unripened honey? My belief is that the bees can ripen honey cheaper and better than we can, so that the best kind of storing-vessel is something to ship the honey to market in. The extracting of unripe honey has done great damage to our pursuit.—G. L. TINKER.

I use three large tanks, two of wood (white oak), heavily waxed, and one of heavy tin that holds 1,000 pounds. I like the tin tank the best; it is more easily cleaned, and keeps sweet and smooth. I don't want anything to "ripen honey in." My bees finish up all my honey to perfection before it is extracted. 1. I think tin is best. 2. Wood will do, if kept well waxed. 3. White oak or cypress.—G. W. DEMAREE.

Honey should be ripened in the hive before being extracted. It may be stored in stone jars, in tin tanks, or in wood barrels, care being taken not to have wood which would taint the honey. Zinc or galvanized iron must *not* be used for storing honey, under any circumstances. See page 184.—EDITORS.

Subscribers who do not receive their BEE JOURNALS promptly, should notify us at once, before the edition is exhausted.

MY BEES.

Out in the bright June sunshine,
  Under the apple trees
Stand in a row together
  The homes of my honey-bees.

This swarm, I call "old crossys"—
  Hybrids, and full of spite,
Farthest away from the pathway,
  Working from morning till night.

Next, "the Italian beauties"—
  Gold, 'gainst the hive's white ground,
Ready to swarm first in spring-time,
  Hive full of bees the year round.

Then, "the Italian's daughter,"
  Hive in one week full of brood—
She may soon equal her mother.
  And prove when tested, as good.

Next, the red hive, with inmates,
  The kindest and gentlest of all;
And sections packed full of honey
  I'll take from the hive in the fall.

So, as I walk through the clover,
  Or down to the end of the row,
And pause by each doorway a moment,
  When, busy, they rush to and fro,

I think, in this world's busy harvest
  We people are somewhat like bees—
Some robbers, some drones, and some workers;
  None thrive with whom work disagrees.
—Nebraska Bee-Keeper.

Topics of Interest.

Experiments—History and Suggestions.

PROF. A. J. COOK.

The subject of experiments in bee-keeping is one that has taken much of my thought for years; and so the article on page 542, from the able pen of one of our most expert bee-keepers, Mr. P. H. Elwood, the late President of the American Association, was read with no slight interest. I am glad that he and the American Association are moving in this direction. I believe he is the chairman of a committee to look after this matter. I am glad that this is so. Such action is wise. I believe the government, which is looking after the interests of almost all industries in very telling ways, should not overlook that of bee-keeping. I am also quite certain that, if bee-keepers demand recognition, and ask aid, the government will not be slow to render all possible assistance.

HISTORY OF APIARIAN EXPERIMENTS.

The present Assistant Secretary of Agriculture, Hon. Edwin Willits, is a man of great breadth, and so has the broadest sympathy with all useful work. He recognizes in apiculture an industry that has men of the noblest fiber in its ranks; that gathers up what would otherwise be a waste-product, and hands it forth to feed the people, thus adding to the Nation's wealth; that does a great though unrecognized service in securing more perfect fertilization of the flowers of our fruits and vegetables, thus adding immensely to the fruitage of our fields, gardens, and orchards. Such breadth of knowledge, and such interest in all that is useful has made him the earnest friend of bee-keepers, as of all other useful citizens.

Just as he was leaving his duties as President of this College, where he had done most excellent service, to assume the still more arduous duties of his present position, I talked over with him the whole field of apicultural experimentation and told him where I thought the United States government could and should assist the bee-keepers in their work. He assured me that bee-keepers, as well as those of other industrial pursuits, should receive attention, and, when possible, aid and encouragement, so far as he was able to secure such service.

The next year after Dr. Willits assumed his duties, I was in Washington, and was asked by both Dr. Willits and Dr. C. V. Riley (who, as head of the Division of Entomology, would naturally have supervision of experiments in apiculture) if, in case the Department wished to carry on experiments in apiculture, the bees at this College could be secured for such work. I replied that I thought they could be had for such purposes.

In the autumn of 1890 Dr. Riley visited me here at the College, and asked me if I would supervise experiments here for the government. I said I would do so if he would employ a good apiarist to take charge of the work. I told him that I thought the best service which the government could render was to secure bees from the Orient; that there might be bees in the East that were superior to ours, and that this was work that private enterprise ought not to have to undertake; there were possibilities in this direction that the government ought to develop; the knowledge thus gained would be valuable to science; and if no practical good came from it, it would still be worth the time and money necessary to the enterprise.

I also urged that Mr. Frank Benton was just the man to attempt this work. I think an unsuccessful effort was made to effect this importation of foreign bees. The experimental work, I suggested, was in the line of our previous work—planting for honey, breeding a race of bees, experiments to show the value of bees as fertilizers of various flowers of useful plants; effect of spraying blossoms of fruit-trees with the arsenites, etc. I do not need to say that this arrangement was made, and that we were so fortunate as to secure the services of Mr. J. H. Larrabee, of Vermont, to take immediate charge of the work.

Last autumn, while in Washington, I expressed to Dr. Willits and Dr. Riley, that my duties were such that I wished to resign the work so far as all responsibility was concerned, though I was willing to advise as before. I suggested that Mr. Larrabee seemed an able man for the work, and recommended that the experiments be put into his charge. I suggested that the large plant at the College could be used as before, and that the location was good; for, in case the agent wished aid in any of the sciences closely related to apiculture—as entomology, botany, chemistry, or bacteriology—there were experts close at hand to give the information or perform experiments desired in those lines.

This plan commended itself to Drs. Willits and Riley, if we may judge from the fact that Mr. Larrabee was appointed, and now has charge of the work. Mr. Larrabee is an honest, careful worker, and I believe will do very satisfactory work. In case he should not prove to be the right man, he will be first to learn the fact, and will quickly resign in favor of another, though I feel sure there will be no call for such action.

Mr. Elwood thinks that Mr. Larrabee's time is too much occupied in caring for the large apiary here. The apiary here is not large—no larger, I think, than a person who has no other duties would wish. Indeed, I know by experience that a person who experiments with only 15 or 20 colonies will be criticised from this very fact, though I think with small reason. Besides, if Mr. Larrabee feels that he has too many colonies, he can reduce the size of the apiary, I am sure. I think the size should be left entirely to him. There is another advantage here. Mr. Larrabee can secure help to care for the apiary at any time, as well as aid in scientific lines. The complaint by the authorities at Washington is, that they have little money. Why, then, ask them to buy a plant when they have one at their disposal?

Mr. Elwood suggests that the work be taken from Mr. Riley's hands. Even granting that this be desirable, it is not practical. We surely cannot get a separate Division for apiculture now. I think, though, that Dr. Riley will leave the work almost, if not wholly, with the apiarist. I think, too, that it would be impossible to secure an apiary at Washington. Is it not better to hold on to what we have, and not grasp for more, and lose all? The other advantages so well presented by Mr. Elwood, are secured here as well as they would be at Washington.

I believe Mr. Larrabee is the right man in the right place. I believe that, if he is sustained by the government and by bee-keepers, he will give far more than value received for the money spent. I believe that, if the bee-keepers ask this, he will be kept at work for a series of years, and will achieve large results. Is it not worth while for the bee-keepers all over the country to write to the Secretary of Agriculture, and ask this favor, or, better, *right?* I have no doubt in my own mind of the wisdom of this course. If the bee-keeping public agree with me, and act in the matter, there is but little question that Mr. Larrabee's work will be continued, and real, substantial good be the result!—*Gleanings.*

Agricultural College, Mich.

Description of Oyster-Can Bee-Feeders.

C. L. BUCKMASTER.

The time has come in the production of honey that it behooves the bee-keeper to economize with all his strength and good judgment. This is the day of cheap sugar, which means cheap candies, cheap preserves, and cheap sweets of all kinds. Legislation is against the bee-keeper; but it is said of old, that "it is an ill wind that blows nobody good." This is true in regard to the apiarist. Cheap sugar makes cheap food to stimulate brood-rearing, and cheap stores for winter.

The foregoing being true, a cheap feeder is imperative. This I propose to suggest in the "oyster-can bee-feeder," which is made as follows:

I take a Langstroth frame and fasten an oyster-can in each end of it. The dimensions of one of these cans are 6¼x4⅜x1⅞, which equals 51 69-256 cubic inches. One quart contains 57¾ cubic inches, so it can be seen that with one of these feeders you are able to feed nearly one-half gallon at one time.

To use the feeder, take out the division-board and one frame, and place the feeder in their place.

Little holes are made in the top edges of the cans. These are made to cover the can with a cotton cloth in such a way that the ends of the cloth will hang into the feeder, and be immersed in the liquid. This covering gives the bees easy access to the food, and makes an easy escape to any which may have fallen into the food.

This cheap feeder I give (as I did my method of wiring Langstroth frames) to the bee-keepers of our country, for their good-will.

Columbia, Mo.

Honey-Dew for Winter Stores, Etc.

M. MILLER.

We have just passed through one of the worst winters and springs for bee-keepers that we have had for years.

In the first place, we did not get any surplus to amount to anything for the last two seasons, on account of dry weather. Last season there was a large amount of white clover bloom, but it contained little honey; then there was a flow of so-called honey-dew starting with the blooming of the box-elder, and continuing until after basswood bloom, thereby spoiling what little white honey we got, and as we live near the timber, we got the full effect of the honey-dew. The different kinds of oak and hickory timber furnished the most of it, which was unfit to eat, let alone to winter bees on. It was the cause of sweeping away whole apiaries in eastern Iowa and western Illinois. Where bees were fed and wintered on sugar syrup there has been no loss. This goes to show that this honey-dew must have been the cause of most of the winter losses. Where apiaries were located away from the timber so far that the bees could not reach it, they have wintered very well.

The first part of the past winter was unusually mild, in fact so mild that there was a larger amount of brood in the hives than should have been. Then we had a pretty cold spell, and the bees did not get a flight for five or six weeks, during which time the honey-dew got in its work on those colonies that were wintered on the summer stands, while those wintered in cellars were in a still worse condition.

This spring has not been a good one for the bees; they lost the maple bloom, box-elder bloom, and the cottonwood bloom, and it looks as if they would lose the apple-bloom, on account of cold, cloudy and wet weather all through the spring.

The colonies that have escaped disaster are slow in building up, while there has been a great deal of spring dwindling. As I said in the first part of this article, we have not had any surplus honey to amount to anything during the last two seasons, and, as nearly all apiaries are run as a side-issue with some other business, the owners did not feel like extracting the honey-dew and feeding sugar syrup, because we have wintered our bees before on honey-dew, and so we thought we could do it again; but there is a difference in honey-dew. Some seasons it is better than others, but it is really unfit to winter bees on in any season. I am becoming more and more convinced that good, pure sugar syrup is the best winter food for bees in the future, and at the present low price of sugar, it will pay well to force the honey into the surplus departments, and feed sugar syrup for wintering.

I think that Mr. Pratt's bottom-bar to his frames, as described on page 638, is just the thing. I wonder why some one did not think of it before. It has many advantages.

I do not think that fixed distances will ever become very popular, except where the owners practice migratory bee-keeping.

Le Claire, Iowa, May 16, 1892.

Foul-Brood Scientifically Considered.

C. J. ROBINSON.

On page 83, Dr. Miller alluded to my writings about foul-brood, and invited me to so define my theory of the origin of foul-brood, that "way-faring" people can fully understand my theorizing, *i. e.*, the forces, the modes of action, the elements, the phenomena, etc., involved in the subject.

It is with pleasure that I accept the invitation, and happily undertake the asked-for explanation; but in so doing I must needs cover more space than the limit of one article in a weekly periodical.

The subject of foul-brood has remained a profound mystery from the beginning or dawn of bee-keeping, though it has been tinkered with by eminent scientists, and would-be wise scribblers, yet the mystery that puzzled Aristotle has not been solved to the satisfaction of bee-keepers at large.

Up to 1880 no mention had been made announcing that foul-brood is a germ disease. Prof. Cohn discovered microbes in samples of foul-brood, and fancied that the disease is *caused* by the germs he saw, not even suspecting that germs may be discovered in all decomposing bee-brood, as well as being present in all decomposing matter. Had the Professor placed a bit of the sample in contact with healthy brood yet unsealed, and in due time discovered that foul-brood had taken root, he then would have been correct in his conclusion that the sample was foul-brood, but he would not know that the germs he saw through the lense were the foul-brood virus that reproduced the disease; the germs, perhaps, were produced by the action of fermentation, decomposing of dead tissue.

The eminent and world-renowned scientist, Frank Cheshire, of England, announced that he discovered microbes or germs in foul-brood, and he assumed to give a technical name to the large, frisky germs which he only saw at first, by which they might be identified. At a later inspection of foul-brood matter he claims to have a smaller germ, and made the announcement that there are two different nations of foul-brood germs—the more recently discovered nation are diminutive compared with his first, and not so unlike; hence, according to Mr. Cheshire, two kinds of foul-brood exist, at least in England. However, in this country, according to reports, there exist divers kinds of what is called foul-brood disease, by some called "chilled brood"—*dead* brood, certain.

More than a decade has elapsed since Mr. Cheshire wrote on the subject of foul-brood, at which time the science of bacteriology only began to glimmer obscurely, but it has so grown and developed within the past few years, as to reach, with almost equal importance, the domains of medicine and surgery. Twenty years ago no one conceived of the possibility of a magnifying power of from 3,000 to 4,000 diameters, of which a recent writer has said, "If we could view a man under such a lense, he would appear from three to four miles in length, or as high as Mont Blanc, Mount Ararat, or even Chimborazo"—a magnifying power which can bring into view an organism so minute and invisible that, when passing under the field, it appears no larger than a point or comma of ordinary print.

Before I conclude this discussion, I will discuss the science of bacteriology as gleaned from works of reference, namely, "Micro-organisms," A. B. Griffiths Bailliere, Tindal & Co., 1891; also Cruikshank's "Manual of Bacteriology;" Cornil & Babes' "Les Bacteries;" De Barry, "Lectures on Bacteria;" Watson Cheny, "Selected Essays; "Micro-parasites in Disease," *New Sydenham Society;* Tyndal, "Piloting Matter in the Air;" Klein, "Micro-organisms in Disease;" Aitkin, "Micro-organisms in Disease" "Studies on Fermentation," by L. Pasteur; and many others in which the reader will find full and complete information.

The origin of foul-brood, as explained by me, is in accordance with natural laws, the subtile influence of the beginnings of life on this planet, the evolution of matter. I refer readers to, "Life Histories of Organisms," Darwin and Pastaire. If one of these giant spirits of the age has revolutionized the old order of thought as to the sources of life, the other has given us a clear insight into the causes of death. More of this after stating my theory in brief.

I claim to know that the origin of the destructive agent that causes dead brood to become poisonous to healthy brood, is by reason of a special fermentation—the fermenting of dead brood—the fermentation proceeding under favorable conditions for generating the micro-organisms, vivifying the spores that ever exist in the tissues before decomposition, the fermentation, whether accidental, as in cases of originating foul-brood, or otherwise, is the essential condition in the process of conversion of a fermentable into a fermenting substance.

In case dead brood passes into an active fermentation—the favorable conditions being moisture and high temperature—the spores that permeate the disorganizing tissues hatch into microbes which, in accordance with a natural law, reproduce when nourished with the same element as that from which they were generated; but these germs possess no power over anything other than this substance—embryo brood. Whenever the elements that compose immature brood changes into mature brood, these germs are perfectly harmless.

I will try to make it more plain, by mentioning that spore life in fermenting brood is, in law, very similar to yeast. Any home is familiar with the process of making yeast without "*seed.*" By a proper combination of fermentable materials, possessing suchrine principles, and kept for a time in a temperature favorable for the action, yeast is produced which is, in very deed, "yeast plants," that are as animate as other bacilli, including those named by Mr. Cheshire.

The development of organic particles, and the decomposition of organic fluids, both in fermentation and putrifaction, can be explained by the presence of certain elements which, under certain conditions, generate changes, and thus originate the new life. If yeast (germs) be planted in their media, saccharine matter, will reproduce themselves, a little leaven will leaven the whole. The talk that foul-brood cannot be originated except from planting the "seed," is equally as fallacious as to assert that yeast cannot be originated by any means other than by planting yeast seed.

Richford, N. Y.

The Mating of Queens.

JOHN D. A. FISHER.

I have just read with much interest Mr. Doolittle's article in *Gleanings*, for May 15, where he says that drones congregate at certain places, and then virgin queens seek these congregated drones to become fertilized, by mating with them.

I agree with Mr. D., that drones congregate to some extent; while I believe this, I also believe that where there are a multitude of drones in an apiary, that a large per cent. of the young queens are mated near their home, or before they ever reach those congregated drones.

I wish just here to ask whether Mr. Doolittle thinks that all the drones in a neighborhood congregate together in one place. Or does he believe that all the drones from, or in, an apiary congregate together in a certain place? I also would like to know whether he believes that virgin queens know, when they leave the hive, where the drones are congregated. If not, how do the queens find those drones, become fertilized, and return to their homes in 25 minutes, which is about the extreme length of time the young queens stay out of the hives? I know that these are deep questions.

I have observed that where a multitude of drones exist in an apiary, this loud noise, or roaring of the drones in the afternoon may be heard in all directions from an apiary within from ¼ to ½ mile, and my opinion and observations are that where this is the case, the young queens are mated near their home. My own queens prove this stand-point to me.

I also believe that the Italian drones fly a long ways from their home in pursuit of virgin queens. I believe that the Italian worker goes further away from home to hunt honey than the blacks do; so do the Italian drones go further away from home seeking a bride. This is the reason we find the Italian blood showing 2½ and 3 miles away among their black sisters.

Keep a multitude of young and vigorous Italian drones in your yard, and the young queens are pretty sure to be purely mated.

Woodside, N. C.

Bee-Keeping in Southwestern Illinois.

D. A. CADWALLADER.

The weather here during May up to this date was cold and wet, raining all the time. April weather was not much better. I live in the "American Bottom," 50 miles below St. Louis; the flood in the Mississippi River for the last two weeks has ruined two-thirds of the growing wheat—yes, I will say three-fourths.

There is no corn planted of any consequence, and what was planted must be re-planted.

The town I live in, previous to the present rains, was flooded by the creek running through it, and great damage was done; the present high water in the river has not reached us yet, except on the out-skirts.

The bees in this locality, as far as I have learned, are nearly all starved to death—and that, too, in the midst of plenty, as the white clover, raspberries, etc., are in bloom. The former has been blooming for two weeks, but the weather was too cold for the bees to get out, hence the starving condition.

I fed my bees, but not sufficient to keep them strong. There is quite a dwindling in some colonies. I united two of the weakest colonies, which are all right now. I introduced two tested Italian queens in my apiary on April 21, having gotten them from a queen-breeder in Texas. I was very successful with them, though I could not put them into the hives for three days after I received them, the cold weather preventing it, also being ill at the time myself. I was fearful that it would be a failure, but now the young Italians are to be seen on the wing from both queens. The first flight the young bees had was just 30 days from the introduction of the queens.

We have had fine weather for the bees during the past three days, and with a few more such days the bees will have recruited their stores, and will make another start on the road to prosperity.

We have white clover in abundance now, and yielding honey, besides raspberry and blackberry, and many other honey-plants in bloom. The bees ought to do well, and I believe we shall have from this date on a continuous honey-flow, if not too dry during the summer.

I do not know when my bees will swarm, if at all. At this date last year I had secured four prime swarms. Three weeks ago the drones were all killed off, which was then a puzzle to me, but now I think I understand their motives.

Prairie du Rocher, Ills., May 26, 1892.

Management of Out-Apiaries.

AARON BENEDICT.

Have ready as many hives as there are old colonies, and fill with combs or foundation. As soon as the hives are full of bees at the commencement of the honey-flow, commence smoking the bees at the entrance a little to quiet them. Lift the hive from the stand, put a new one in its place; now drum the bees up into the cover or box, and shake them out on a cloth in front of the new hive, and as the bees run in, look for the queen (be sure she is in the new hive).

Place a wire screen on top of the new hive; put the old hive on top, minus the bottom-board; all the hives should have loose bottoms.

After the bees get to work in the lower hive, remove the screen, and let the bees go together. The queen will generally remain in the lower hive where there is ample chance to deposit eggs, and the bees will store the honey in the upper hive. This honey may be extracted from time to time, or left until the honey season is over, and then extracted. I like the latter plan the best, because we get good, ripened honey; and here in central Ohio our honey harvest ends about the middle of July. We have no fall honey here, and the upper hive holds all the honey the bees can gather, consequently we do not have to extract until the honey season is over.

In running an out-apiary, keep the bees separate for seven or eight days, then overhaul the old hive and destroy all the queen-cells; this will stop after-swarms. Remove the separator, and let them go together, and the work is done. No need of any one to watch for swarms.

After the honey season is over, smoke the bees down into the lower hive, take off the upper hive, then examine the lower hive; see how much honey they have, and if not enough for winter, take sealed honey from the upper hive and give them sufficient to winter. Extract the balance, put the hives and combs in a dry place secure from mice, for next year's operations. In managing bees this way, we have large colonies to go into winter quarters, and also large colonies for next year's operations.

Running bees in out-apiaries for comb honey is more difficult unless we divide the bees. Drum out the bees as in the other case. (I like the drumming process best, as it causes the bees to fill their honey-sacs, and this gives them something to go to house-keeping with.) Let them run into the new hive, put them on the old stand, and place the old hive on a new stand. In seven or eight days go through the old hive and cut out all the queen-cells but one, to prevent after-swarms.

At my home apiary, in running for comb honey, I would rather the bees would not swarm. If they do, I hive and place the new swarm on the old stand. If the bees have commenced storing honey in the sections, and if they are not finished before swarming, I place the sections on the new swarm to finish; or if running for both extracted and comb honey, and they swarm, put the new swarm under the old one, take off the sections, and put them on any strong colony that is not working in the sections, then extract from the upper hive, as before mentioned.

Bennington, Ohio.

A Visit Among Iowa Bee-Keepers.

THOS. JOHNSON.

In the forepart of April I visited Mr. O. P. Miller, of Glendon, Iowa, who has an apiary of 45 colonies. On account of insufficient stores to keep the bees, I would not be surprised if he lost nearly half of them, not having as good a honey-flow in the southern as the northern part of the county.

On April 27 I visited North Audubon and Carroll counties, and also Jos. Hardie, of Dedham, who had 18 colonies with a loss of one, and a good flow of honey. I then went to see Mr. Rees Phillips; I found him doing well, and improving his stock by purchasing Italian queens. I left Mr. P. in the morning and visited different apiaries of not much note until I came to Mr. C. A. Emmons, of Manning. He has an apiary of 20 colonies, and uses the Hubbard hive, put up by a manufacturer at Manning. Being cut by hand, it is very hard to use. After showing him the difference between the eight-frame dovetailed section-holders and T tins, he sent for ten No. 2 hives, and likely the readers of the BEE JOURNAL will hear from him next fall, when he will tell that he can manipulate the eight-frame hive without killing the bees. In and around Manning there was a fair flow of honey in 1891.

On May 5 I arrived at Wiota; here I found Levering Bros., who were busy preparing goods for shipment. They said that Nebraska had a better flow of honey, on the average, than Iowa.

I then went to Neola, and visited L. B. Johnson, who has a few colonies. The bees are in a fair condition for building up for summer work. I learned from different bee-men that the honey-flow was fair in 1891, and that the loss did not exceed 5 per cent. in wintering.

I took the train for Persia, 52 miles from Council Bluffs, and finding the bees not very plentiful, I went to see Mr. F. F. Kellogg, of Portsmouth, who has an apiary of 10 colonies. His loss was 10 per cent., and he states that there was not much of a honey-flow in his neighborhood.

I then went to Panama, and met Mr. G. Walters, of the banking firm of Albertus & Walters. Mr. Walters has an apiary of 12 colonies, which wintered without any loss. Mrs. Walters is the apiarist. Around Panama they had an average honey-flow of 10 pounds per colony. The loss in winter and spring dwindling will not exceed 5 per cent.

I then went to Earling, in Shelby county. Here I find the bee-keepers using the Simplicity eight-frame hives. I tried to explain as best I could to them the difference between the slide top and movable bottom.

Reaching the town of Defiance, I met some bee-keepers who had just started in the business. The flow of honey was light in 1891, and there will be a loss of nearly 10 per cent. among the bees. The people of Defiance have been visited by a patent-right man in the shape of a "moth proof bee-hive," which I call a "moth-proof nuisance." After giving my opinion on the patent-right nuisance, I went to Manilla, and found that the honey-flow about averaged with the towns between Neola and Manning.

In all my travels this spring, in and around Carroll county, there was a good honey-flow, considerably better than the adjoining counties.

I left Manning, and on my way I found the roads in a very bad condition. In the month of April there were five days that the bees flew with comfort, and this month two days out of seven. Sunhine is almost a stranger in these parts, but plenty of bad roads.

Coon Rapids, Iowa, May 13, 1892.

Wintering Bees on Honey-Dew.

C. F. COLLINS.

I wish to say something in regard to the much-talked-of honey-dew. I am aware that I am not taking the popular side of this question, but it seems to me that the so-called honey-dew is frequently condemned, and disparagingly spoken of as winter stores for bees, without positive proof of its ill effects.

Prior to last winter I packed my bees for winter on the summer stands, but last fall it was impossible for me to get it done, so they stood without their usual protection, in Langstroth hives.

Last year we got no white clover honey in this section of the country, but the bees filled their hives, supers, and all with honey-dew. Then in the fall gathered a little fall bloom, as I judged scarcely half enough to last them through the winter.

As we thought we would not have much use for the honey-dew, we only took off about half of the supers, leaving the rest on through the winter, so as to give the bees an opportunity to utilize all of it that they would for brood-rearing in the spring, so you see the bees did not receive the care they should have had, and yet they came through the winter without any loss, stronger in bees, and seemingly in better condition for the work, than ever before.

Now, I am not going so far as to say that the honey-dew has done all this, but merely wish to show that it is possible for bees to winter well on honey-dew.

Mr. C. H. Dibbern, in his article on page 610, after giving an account of his losses of 20 per cent., asks, "If all the trouble was not caused by the honey-dew, will some one tell us what did?" I am not here to say what did, but could not I go a little further and say, with equal propriety, if the honey-dew did not bring my bees through so successfully, then what did?

I find there are a great many things in bee-keeping which are hard to account for, or to explain, and some things in which my own experience does not seem to accord with that of others. I will cite one little instance which now comes to mind, viz.:

Several years ago, I saw it asserted through bee-periodicals, that bees would winter well entirely covered with snow; so one morning, after a heavy fall of snow, when sweeping the drift away from the hive fronts, I thought I would leave one covered. After the snow went off, which was after several weeks, I went around and found my bees in the covered hive "as dead as a door-nail," with plenty of honey and plenty of bees. The rest were all well and "a-kicking!" Was it a co-incidence, or do any of you winter your bees under snow?

Linneus, Mo., May 10, 1892.

Standard Size of Sections.

C. B. JENKS.

On page 670 a correspondent, speaking of the adoption of a standard size sections, favors the adoption of a box which shall weigh 16 ounces when filled. Now, I am not going to comment on his statements, simply for the sake of opposing them, but I wish to give my views on the subject.

If a box 4¼x4¼x1⅞ inches, filled in first-class style, weighs 12 ounces, as he states, it would have to be made considerably wider, or larger in some way, to weigh a full pound. This would necessitate altering the size of supers in a great many cases, which would be a detriment to bee-keepers in general, and would incur a great expense for large producers.

Then, again, if we use a section that will contain more honey than those in use at present, the price per section will have to be advanced, and many consumers will get the impression that the price of honey has gone up.

I think that the section now in use is better adapted to the Langstroth hive than any other size would be, and this hive seems to be preferred by the majority of bee-keepers.

I do not believe, however, in selling a section, which contains 12 or 14 ounces, for a pound; and I see no need of so doing. Why not call it simply a "section of honey?" or, in comparison with a 2-pound section, one can be called the "large size," and the other the "small size."

The majority of bee-keepers are in favor of sections 4¼x4¼x1⅞ or 1 15-16 inches, and why not let it so remain? I think it would be more sensible, and equally as honorable.

Pawtucket, R. I.

Prevention of Swarming.

No two bee-keepers entertain the same opinions as to the best methods of preventing swarming. No practical method has as yet been brought out for either preventing or controlling natural swarming. We have been told of the queen restrictors, of clipping the wings of queens, or the "jump" method, and how swarming is prevented by extracting from the brood-chamber, etc. In a measure, all the above operations have some effect in retarding and preventing the issuing of a natural swarm.

Of the plans above mentioned, that of extracting from the brood-combs is the most effectual. The disturbance to the queen, bees and brood-nest, by removing and extracting the honey from the combs, has much to do with breaking up the desire to swarm.

When an apiary is worked for comb honey in sections, it is not practicable, convenient or advisable to disturb the brood-nest. A colony seized with the swarming fever will surely swarm, even though there is an unlimited amount of surplus room in the hive. It is when the bees have this fever that a method for prevention of swarming is needed.

The queen-trap is the only thing that will serve the apiarist when he has his hives all equipped with sections, and is either away from home, or very busy. If at home and not ready to attend to hiving a swarm when one issues, it will not be necessary to do so if there is a trap on the hive. If a swarm issues from a hive provided with sections, the combs ought not to be disturbed for three days, at which time the queen-cells should be removed, and the queen that came off with the swarm re-introduced. Any other queen will do just as well, and can be safely given the bees if a change of queens is desirable. No swarm will issue from that hive until the next season.—*American Apiculturist.*

CONVENTION DIRECTORY.

Time and place of meeting.

1892.
Sept. 7, 8.—Nebraska, at Lincoln, Nebr.
L. D. Stilson, Sec., York, Nebr.

Oct. 7.—Utah, at Salt Lake City, Utah.
John C. Swaner, Sec., Salt Lake City, Utah.

1893.
Jan. 13, 14.—S.W.Wisconsin, at Boscobel, Wis.
Benj. E. Rice, Sec., Boscobel, Wis.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITORS.

North American Bee-Keepers' Association

PRESIDENT—Eugene Secor..Forest City, Iowa.
SECRETARY—W. Z. Hutchinson...,Flint, Mich.

National Bee-Keepers' Union.

PRESIDENT—James Heddon ..Dowagiac, Mich.
SEC'Y AND MANAGER—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Predicts a Good Season.

I had a large swarm of bees on May 15, 1892. I predict a good honey year.

AARON BENEDICT.

Bennington, Ohio.

Feeding in Hives with Tight Bottoms.

If one uses a hive with a tight bottom, what proportion of food will be lost if it is poured in at the entrance, the front of the hive being raised? Or, if one wishes to feed a little every day, would it be better to saturate a sponge with syrup, and lay it on the frames?

Lochiel, Ind. A. C. BUGBEE.

[Neither plan is to be recommended. It would be far better to use any good feeder, either over the frames, or at the entrance.—EDS.]

Sick Bees from Damp, Cold Weather.

I have sent to Prof. Cook to-day a few sick bees, just taken before death What is wrong with them? The sick bees come out of the hives in great numbers, and hop off in the grass like grasshoppers, and are somewhat swollen. I have 5 colonies infected with the disease, but they are all right otherwise. Please answer in the AMERICAN BEE JOURNAL. OTTO F. SEMKE.

Harrison, Kans., May 16, 1892.

[I have carefully examined the bees with a high-power microscope, and find no appearance of poison, but their intestines are full of very black, undigested pollen. I cannot say positively what causes the disease, but can only suggest the cold, damp weather, or else perhaps gathering and feeding on damp, sour pollen. Has any other bee-keeper noticed a similar affection? I imagine that dry, warm weather, should it ever come, might put all to rights.—A. J. COOK.]

All Ready for the Harvest.

Bees have had a very hard time of it so far this spring, on account of cold and rainy weather. Fruit-bloom has benefited them but little, and every extra comb filled with honey, and set aside for spring feeding, has come very handy this spring. But then, my bees are in tip-top trim, owing to timely and prompt attention given them, and keeping them under winter packing until now. WM. STOLLEY.

Grand Island, Nebr., May 26, 1892.

Profitable Honey Season Expected.

We have had a very late spring here, but my bees are building up very rapidly, and there is every indication of a profitable season here. The poplar has been in bloom for quite a while, and the bees have been working well on it, but have gathered but little surplus from it. My bees will be in a fine condition for the sourwood bloom, and if it yields as much as it generally does, I will get considerable honey from that source. My bees were stronger this spring than they were last, but I have had no swarms yet. The colony of Italians I spoke of on page 583, are doing good work now. It was very weak early in the spring.

There was only about a pint of bees in it then, but now they cover well nine Simplicity frames, and I have taken several frames of brood and honey from this colony to strengthen others. I think that I will Italianize most of my bees this season, for I am quite sure that they are better than the blacks and hybrids. ED. CLARK.

Nat, Ala., May 28, 1892.

A Good Year for Ducks.

What a hard year for bee-keepers, and all others, in fact. Ducks are about the only ones to rejoice, and they must needs have a full coat of feathers to enjoy life. A. J. COOK.

Agricultural College, Mich., May 27.

Bees are Working Hard.

I put my bees into the cellar on Nov. 15, 1891, and took them out on April 15, 1892. It was a long winter for them, but they all came out in fine condition. It has been so cold and wet nearly all the time since, that they could not do anything. It is quite warm to-day, and they are working hard. The season is at least 15 days later than usual. LYMAN CHANDLER.

New London, Minn., May 28, 1892.

Killing off Drones.

I would like to ask in regard to bees killing drones at this time in the early part of the season. I have 5 colonies, all in good condition, and the strongest are killing the drones. What is the cause, and also the remedy?

FRANK PERKS.

Minden, Iowa, May 28, 1892.

[Doubtless the cause of the bees killing off their drones is on account of being short of stores. If honey is not obtainable soon, of course the bees should be fed.—EDS.]

Forming Nuclei from Hatching Brood.

A subscriber to the BEE JOURNAL in Nebraska, wishes me to give my opinion of forming nuclei out of hatching brood. In reply I would say that it is dangerous to make nuclei of hatching brood alone, unless the weather is warm, and the operator is very careful. It will be best to have the adhering bees with each frame; but you can form nuclei with hatching brood, by keeping the hive shut up, or out of reach of robber bees, until the nuclei are sufficiently strong, and old enough to fly. You had better not risk it very much, is my advice.

Bees are gathering honey briskly at present, but, all in all, we have had the hardest spring on bees for many years.

MRS. JENNIE ATCHLEY.

Floyd, Tex., May 27, 1892.

[We would refer the questioner to any of the various bee-books for further information on the subject of forming nuclei. Every beginner should have at least one of the standard works near at hand, to which he can refer upon all subjects relating to bee-keeping, which are there usually treated of more fully than could be done in any bee-periodical. On the second page of this issue of the BEE JOURNAL may be found a list of apiarian manuals, etc., from which to select.—EDS.]

Fruit-Bloom is Heavy.

We are having the coldest, wettest, and most backward spring here within the memory of the oldest inhabitant. There has really been only one what might be called a real good bee-day this spring, and that was day before yesterday. Bees were out that day before seven o'clock, and until sundown. Fruit-bloom is at its height, but it was cloudy and rainy yesterday, and we are having a cold rain again to-day. Every day like this adds to the already heavy loss, and if there is not a change soon, "seed bees" will be in demand here. The loss of several bee-keepers here has already reached 100 colonies, and there does not seem to be much consolation in knowing that it will stop at the 100 mark. There is every prospect of plenty of flowers, and a fair year, if a little sunshine could be mixed in to give the bees a chance. The fruit-bloom is the heaviest known in years.

L. J. CLARK.

Wiscoy, Minn., June 1, 1892.

Unwarranted Charges of Adulteration.

In looking over the Report by Prof. Wiley a few days ago, I noticed that he charges Chas. Muth, of Cincinnati, with adulterating honey. Perhaps he means it "only as a scientific pleasantry," but we have already had enough of that. Now, as I have been intimately acquainted with Mr. Muth, and have purchased large quantities of honey from him in the past seven or eight years, I feel like entering my protest against any such unwarranted attack, and I think it the duty of every honey-producer, and every honey-dealer, to uphold and defend one who has done so much for them, and so much to educate the people in regard to honey, as Mr. Muth has.

W. O. Titus.

Toledo, Ohio, May 31, 1892.

[Dr. A. B. Mason says: "I heartily concur in what Mr. Titus writes in the above letter." So do all who know our friend Muth. The charge of adulteration is entirely unfounded, and without the slightest excuse whatever.—Eds.]

Wavelets of News.

Description of Two Bee-Feeders.

The first is a quart basin of cheap tamped ware, with a 1⅛-inch hole cut in the bottom, into which a tube is soldered. The top of the tube comes to within ½ inch of being even with the top of the basin. Now open the hole in the honey-board, or remove packing, and cut a small hole in the quilt, over which place the basin so that the bees can come up through the tube. Make a tube of coarse paper, and push it into the tin tube to aid the bees in climbing up. Fill the basin with syrup as far as the top of the tube, place a float of cloth or anything to keep the bees from drowning. Now cover the basin over with paper, and make it as warm as you please with packing. The bees will come up and take that food in cool weather, and no openings have been made to allow the much-needed heat of the hives to escape.

The other feeder is made in this way: Take a Mason quart jar. Break the porcelain lining out of the cover; punch a dozen or more small holes in the cover with an awl. Now get a piece of pine board, ⅞x4 inches square; with an extension bit bore a hole through it large enough to receive ¼ inch of the top of the jar. When the cover is on, fill the jar with thin syrup. Screw the perforated cover on tightly, place the block over the hole in the honey-board or quilt; invert the jar and insert in the block; replace packing, etc. The bees will suck the contents out of the jar in one or two days, though of itself it will not run out. I think this is an improved method of using the Mason jar as a feeder. Of course they are cheap, as you spoil only the covers, and every one has empty Mason jars not in use at this season of the year.—*Gleanings.*

Feeding and Dividing Bees.

I agree with Mr. Muth, of Cincinnati, that the most profitable time for feeding bees is after fruit bloom, in the interim preceding white clover bloom. Many seasons in this locality it is not needed, as there are acres of dandelions, some wild cherries, and honey and black locusts. The only secret that there is about making bee-keeping a success is to have the bees strong in workers at the right time. And the right time should be known approximately at least, by the owner of the apiary. This is the measure of success, and it matters not by what route it is reached, so that the owner "gets there."

A lady consulted me lately in reference to the best time to divide bees. I wrote her that I thought the bees knew more about that than we do. And I am fast coming to the conclusion that we have meddled too much and too often with their domestic arrangements. There has been a scarcity of honey throughout the country generally for three years, and now there is an omen in our favor that there will be honey this season, and let one and all try to secure as much as possible while it lasts, in lieu of increase, for bees can be reared during poorer seasons. The bee industry should be well represented at the Word's Fair, and this is the season that the honey must be produced if an exhibit is to be made.—Mrs. L. Harrison, in the *Prairie Farmer.*

Can Bees Hear?

The "bee-specialist" may say that bees do hear, but not as man hears. If a row of blocks be set up in juxtaposition, and a blow be struck on the outside block, the man with his hand on the block at the other end of the row will feel the blow, or the effect of it, communicating to each block and carried through them all, however long the row might be, if the blow be struck with sufficient force.

Thus, probably, does the bee hear or feel by the sense of touch, hears with its feet and antennæ, if the expression may be used. If a bee-keeper goes to a hive containing a strong colony and raps on the hive gently, the bees feel it or hear it, and respond immediately by raising the note of alarm.

But if the bee-keeper, before the entrance of the hive, within six inches of it, strike with a hammer upon a board, barrel, or any resounding surface, the bees apparently do not hear, for there is no movement among them. Man hears by the vibratory action of the atmosphere—by the air blocks striking together and tapping upon the tympanum or ear drum. If the bees have no ears then the vibrations or result of contact must be carried to them through some other medium—a medium tangible to the bees—a medium, perhaps, which they may feel or rest upon.

In some places, even to-day, when the bees swarm, the farmer and his family may make a great uproar by striking upon tin pans, ringing bells, and blowing horns. It is useless, for the bees do not hear it, and hence cannot be affected by it.—JULIA ALLYN, in the *American Farmer.*

Cure for Gapes in "Chicks."

Turpentine is as nearly a specific for the gapes in young chicks as anything can be. This disorder is caused by a threadlike worm which stops up the throat and suffocates the chick. Absolute cleanliness about the hen house is a great preventive, and then turpentine comes in as a treatment. For young chicks a small quantity given in the food once a day until the system is saturated with it will be a relief. It is also advisable to give it to the hen when she is sitting on the eggs, so that she may be freed from the worms before the chicks are hatched. This goes far to prevent the trouble with the chicks.

When corn, coarsely ground, or cracked wheat is fed, it is well to stir a tea-spoonful of turpentine in a pint of the food, and give it in this way. This method at once stopped the disorder in some broods of young turkeys reared by the writer last spring, and not one of more than 30 was lost, while the year previous more than half of the broods died in the first four weeks. It is the vapor of the turpentine that kills the worms, and after two or three doses of it this begins to pass through the lungs quite freely.—*Exchange.*

Mountain Laurel Honey Not Poisonous

A certain man says he has a young man living with him who lived all his life in northeast Tennessee, saying he never saw a bee on what is called "mountain laurel" there, and believes bees cannot work on it, on account of the fact that the blossoms are too sticky. Yes, bees do work on it here in West Virginia, on the Alleghany Mountains. There are hundreds of acres here in these mountains. There are two kinds—big and little laurel. The little is the kind the bees work on most. Last summer bees worked on laurel quite strong in preference to white clover. True, the blossoms are sticky, but bees load up, I think, in half the time they do on white clover.

I never heard of any one being sick here from eating laurel honey, although the leaves of the little laurel are poisonous to cattle and sheep; but I hardly believe that laurel honey would have so much poison as to make one sick. I have found about 40 bee-trees since I came here, and all in reach of laurel. The honey from these trees never make us sick.—JNO. SLAUBAUCH, in *Gleanings.*

The Value of Kind Words.

"The law of kindness is upon his lips" is a description of the good man. Even a dog appreciates a pat of approval. We are here to help people, and to speak "comfortably one to another." Flattery is one thing; a generous word of encouragement and approval is quite different. You know somebody who is sorrowing, or tempted, or discouraged, help him with a word of sympathy. Do not wait until your friends are dead to say nice things about them, and send them flowers. Say the lovely things now and here, and distribute your flowers, a blossom at a time, all along the years, instead of unartistic and expensive "gates ajar," or "rest in peace," when the heart is still, and the hands are cold in death. Do not criticise, depreciate, or disparage persons. Their reputations are in your hands. By a word spoken in season you may dry many a tear, lighten many a burden, lift up many a drooping head, give strength in the hour of temptation, clear the pathway of the living, and smooth the pillow of the dying.—REV. A. W. PATTEN, in the *Epworth Herald.*

Feed the Bees if they are short of stores. Don't let them starve.

AMERICAN
ESTABLISHED IN 1861
OLDEST BEE PAPER IN AMERICA
BEE JOURNAL

ADVERTISING RATES.

20 cents per line of Space, each insertion.

No Advertisement inserted for less than $1.00.

A line of this type will admit about eight words. ONE INCH will contain TWELVE lines.

Editorial Notices, 50 cents per line.
Special Notices, 30 cents per line.

Transient Advertisements must be paid for IN ADVANCE.

DISCOUNTS:

On **10** lines, or more, 4 times, 10%; 8 times, 15%; 13 times, 20%; 26 times, 30%; 52 times, 40%.
On **20** lines, or more, 4 times, 15%; 8 times, 20%; 13 times, 25%; 26 times, 40%; 52 times, 50%.
On **30** lines, or more, 4 times, 20%; 8 times, 25%; 13 times, 30%; 26 times, 50%; 52 times, 60%.
On larger Advertisements, discounts will be stated, upon application.

Advertisements intended for next week must reach this office by Saturday of this week.

GEORGE W. YORK & CO.,
199 Randolph St., - CHICAGO, ILLS.

Special Notices.

The Date on the wrapper-label of this paper indicates the end of the month to which you have paid for the JOURNAL. If that is past, please send us one dollar to pay for another year.

◆

The Premiums which we give for securing new subscribers to the AMERICAN BEE JOURNAL, are intended as pay for *work done* in getting new names among your friends and acquaintances, and are not offered to those who send in *their own* names as new subscribers, unless such name or names form a part of a club of at least three subscribers.

The Convention Hand-Book is very convenient at Bee-Conventions. It contains a Manual of Parliamentary Law and Rules of Order for Local Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with subjects for discussion, and about 50 blank pages, to make notes upon. It is bound in cloth, and of the right size for the pocket. We will present a copy for one new subscriber to the BEE JOURNAL, with $1.00.

◆

An Apiary Register is a splendid book to have in an apiary, so as to know all about any colony of bees at a moment's notice. It devotes two pages to each colony. We will send one large enough for 50 colonies, for $1.00, postpaid; for 100 colonies, for $1.25; or for 200 colonies, for $1.50. After using it for one season, you would not do without it.

◆

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a nice, 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25 cents, or will be given for one new subscriber, with $1.

◆

A Binder for preserving the copies of the AMERICAN BEE JOURNAL as it arrives from week to week, is very convenient. You should have one, as it is so handy for reference from time to time. We mail it for only 50 cents, or will give it as a premium for two new subscribers, with $2.00.

◆

When Talking About Bees to your friend or neighbor, you will oblige us by commending the BEE JOURNAL to him, and taking his subscription to send with your renewal. For this work we offer some excellent premiums that you ought to take advantage of.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the American Bee Journal must be sent with each order for another paper or book:

	Price of both.	*Club.*
The American Bee Journal	$1 00	
and Gleanings in Bee-Culture	2 00	1 75
Bee-Keepers' Guide	1 50	1 40
Bee-Keepers' Review	2 00	1 75
The Apiculturist	1 75	1 65
Canadian Bee Journal	2 00	1 75
American Bee-Keeper	1 50	1 40
Nebraska Bee-Keeper	1 50	1 35
The 8 above-named papers	6 25	5 25
and Langstroth Revised (Dadant)	2 40	2 25
Cook's Manual (1887 edition)	2 25	2 00
Quinby's New Bee-Keeping	2 50	2 25
Doolittle on Queen-Rearing	2 00	1 65
Bees and Honey (Newman)	2 00	1 75
Binder for Am. Bee Journal	1 50	1 40
Dzierzon's Bee-Book (cloth)	3 00	2 00
Root's A B C of Bee-Culture	2 25	2 10
Farmer's Account Book	4 00	2 20
Western World Guide	1 50	1 30
Heddon's book, "Success,"	1 50	1 40
A Year Among the Bees	1 50	1 35
Convention Hand-Book	1 50	1 30
Weekly Inter-Ocean	2 00	1 75
Toronto Globe (weekly)	2 00	1 70
History of National Society	1 50	1 25
American Poultry Journal	2 25	1 50
The Lever (Temperance)	2 00	1 75
Orange Judd Farmer	2 00	1 75
Farm, Field and Stockman	2 00	1 75
Prairie Farmer	2 00	1 75
Illustrated Home Journal	1 50	1 35
American Garden	2 50	2 00
Rural New Yorker	3 00	2 25

Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

◆

Almost Every Bee-Book that is now published we mention on the second page of this issue of the BEE JOURNAL. Look over the list and select what you want. For every new yearly subscriber that you secure for us at $1.00, we will allow you 25 cents, to apply on the purchase of any book we have for sale. This is a rare chance to get some valuable apicultural reading-matter, and at the same time aid in spreading helpful apiarian knowledge among our friends.

◆

Webster's Pocket Dictionary we offer as a premium for sending *only one new* subscriber with $1.00. It is a splendid little Dictionary—and just right for the pocket.

Premium to Every New Subscriber.—We will *give* to every new subscriber (with $1.00), for whom it is desired in place of getting any other premium we offer for work done, a copy of "RURAL LIFE"—a valuable pamphlet of over 100 pages, devoted to "Farm Topics, Live-Stock, Poultry, Bees, Fruits, Vegetables, Household, Home, and Miscellaneous Matter." Or we will send it, postpaid, for 25 cts. This is a rare chance for new subscribers to get some excellent reading for nothing—by sending $1.00 for one year's subscription to the BEE JOURNAL.

◆

Good Place to Advertise.—"I know by experience that the AMERICAN BEE JOURNAL is a good place to advertise." So says Mrs. Jennie Atchley, of Floyd, Tex., who is like many others that want to increase their business, and know a good thing when they see it. Try the BEE JOURNAL as an advertising medium, and see for yourself.

◆

When You Have any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

FOR SALE OR EXCHANGE—Italian Bees and Queens. Address, OTTO KLEINOW,
22Etf No. 150 Military Ave., Detroit, Mich.

WANTED—Everybody to send for sample of the Thinnest and Best Surplus Foundation made—14 to 16 square feet to the lb.
24A4t W. H. NORTON, Skowhegan, Me.

WANTED—Five Hundred Apiarists to try my PURE ITALIAN QUEENS at one dollar each. Now ready. Satisfaction guaranteed.
H. M. STEPHENS,
21A4t Munden, Republic Co., Kan.

FOR SALE—36 Improved L. Hives complete nailed and painted, $1 each; 2000 Sections, $5.50. Large sample pkg. Alsike clover seed, 10c.; lb. 30c.. prepaid. Large sample pkg. New Japanese Buckwheat, 5c.; lb. 20c., prepaid; per bu. $1.20.; sacks free. Warranted Italian Queens, $1.50. L. J. CLARK, Wiscoy, Minn.
24A2t

HONEY AND BEESWAX MARKET.

CHICAGO, May 28.—Fancy comb honey is selling at 16c.; choice, 14@15c. Other grades 10@13c. Extracted, scarce, good demand, at 7@7½c. Beeswax, active sale, 28c.
S. T. FISH & CO., 189 S. Water St.

NEW YORK, May 28.—No demand for comb honey excepting fancy white. Quite a stock on the market of off grades and buckwheat. New Southern extracted arriving and sells at from 70@75c. per gallon for choice; 65@70c. for common. Beeswax quiet but firm at 27@29
HILDRETH BROS. & SEGELKEN,
28-30 West Broadway.

KANSAS CITY, Mo., May 28—Demand light, supply large. Prices: No. 1 white comb, 13@14c.: No, 2 white, 10@12c. Extracted, white, 6@7c.; amber, 6@6½c.; dark, 5c. Beeswax—Demand good, supply light. Price, 22@27c.
CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI, May 28—Demand is slow for comb with good supply. Price, 12@15c. Demand for extracted is fair at 5@8c.

Beeswax is in good demand, at 25@27c for good to choice yellow.
C. F. MUTH & SON,
Cor. Freeman & Central Aves.

NEW YORK, May 28—Demand for honey is very moderate, supply good, exceeding the demand. There is little demand for fancy 1-lbs. Market pretty well cleaned up of that grade, but plenty of fair. Prices: Comb, clover, 8@12c.; buckwheat, 7@9c. Extracted, clover, 6½@7c.; buckwheat, 5½@6c. Beeswax—Demand fair, supply plenty for demand, at 27@29
CHAS. ISRAEL & BROS., 110 Hudson St.

KANSAS CITY, Mo., May 28—Demand poor, supply light of comb. Fancy 1-lbs., 12@13c.; dark, 8@9c. Extracted, white, 7c.; dark, 5@6 No beeswax on the market.
HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, May 28.—The demand is slow, and supply fair, and will be absorbed by time new crop comes. Comb, 11@12½c. Extracted, 7@8c. Beeswax—Demand moderate, supply fair; price, 27@28c.
M. H. HUNT, Bell Branch, Mich.

CHICAGO, May 28.—Demand fair and supply short on fancy stock. Comb, 14@15c. Extracted, slow sale at 6@7c. Beeswax—Demand good, supply short on prime yellow; price, 25@28c.
J. A. LAMON, 44-46 S. Water St.

MILWAUKEE, May 28—Demand very moderate, supply average of all grades but common quality. Best 1-lbs. 15@16c; common, 12@13c. Extracted, white, in barrels, 7c.; in kegs, 7½c; in pails, 7½@8c. Beeswax—demand fair, supply small. Price, 23@28c.
A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO, May 28.—Demand light, supply light. Comb, 10@12c. Extracted, 5@6¼c, Beeswax — Demand fair, supply light. Price, 25@27c. A fair to good honey crop for 1892 is expected.
SCHACHT, LEMCKE & STEINER,
16 Drumm Street.

NEW YORK, May 28—Demand is light, and supply large, except buckwheat comb. We quote: Fancy white comb, 12@14c; buckwheat, 9@11c. Extracted—Clover and basswood in good demand at 6½@7c; buckwheat and demand at 5@6c. Beeswax in fair demand at 26@28c.
F. I. SAGE & SON, 183 Reade St.

CHICAGO, May 28. — Demand is slow, supply fair, but not excessive, and market should clean up. Prices: Comb, 15c. is about the top. Extracted, 6, 7@8c.; supply small. Beeswax —Demand good, supply better than last season. Price, 27c. for yellow.
R. A. BURNETT, 161 S. Water St.

BOSTON, May 28.—Demand is light, supply fair. We quote: 1-℔. fancy white comb, 13@15c; extracted, 6@7c. Beeswax—Demand fair, supply light. Price, 28c.
BLAKE & RIPLEY, 57 Chatham St.

MINNEAPOLIS, MINN., May 28—Demand is moderate, supply of dark is large, but white is not so plentiful. Prices: Dark comb, 10@13c.; white, 15@17c. Extracted, supply plenty. Beeswax—Demand good, supply small.
STEWART & ELLIOTT.

ALBANY, N. Y., May 28.—Demand is very little for comb at 8@13c. Market quiet. Extracted, 6@7c. Beeswax in good demand at 28@30c. for good stock.
H. R. WRIGHT, 326-328 Broadway.

NEW YORK, May 28.— Demand moderate, and supply reduced, with no more glassed 1-℔ nor paper cartons, 1-℔. We quote: Comb, 1-℔, 14@15c. Extracted—Basswood, 7¼@7½c; buckwheat, 5½@6¼; Mangrove, 68@75c per gal. Good demand for dark extracted honey. Beeswax, in fair supply, with small demand, at 26@27c.
F. G. STROHMEYER & CO., 120 Pearl St.

Winter Problem in Bee-Keeping; by G. R. Pierce, of Iowa, who has had 25 years' experience in bee-keeping, and for the past 5 years has devoted all his time and energies to the pursuit. Price, 50 cents. For sale at this office.

We Club the AMERICAN BEE JOURNAL and the monthly "Illustrated Home Journal" one year for $1.35; or both of these Journals and the semi-monthly "Gleanings in Bee-Culture," for one year, for $2.10.

The Honey-Bee; giving its Natural History, Anatomy and Physiology. By T. W. Cowan, editor of the *British Bee Journal*, 72 figures, and 136 illustrations. $1.00. For sale at this office.

The Amateur Bee-Keeper, by J. W. Rouse, is a book of 52 pages, intended, as its name indicates, for beginners. Price, 25 cents. For sale at this office.

The Busy Bees, and How to Manage Them, by W. S. Pouder. Price 10 cents. For sale at this office.

THE AMERICAN BEE JOURNAL
CIRCULATES
ALL OVER THE WORLD.
PUBLISHED BY
GEORGE W. YORK & CO.
CHICAGO, ILL.

ONE DOLLAR PER YEAR.

Club Rates,—Two copies, **$1.80**; 3 copies, **$2.50**; 4 copies, **$3.20**; 5 copies, **$3.75**. Mailed to any addresses.

THOMAS G. NEWMAN, } EDITORS.
GEORGE W. YORK, }

Vol. XXIX. June 16, 1892. No. 25.

Editorial Buzzings.

When June is Here, what art have we to sing
The whiteness of the lilies 'midst the green
Of moon-washed walls: or flash of roses seen
Like redbirds' wings; or pippings ripening
In matted foliage where the cloyed bees cling
Round winey juices oozing down between
The peckings of the robin, while we lean
In languor sweet past wit of uttering;
Or the cool term of morning, and the stir
Of odorous breaths from grassy meadow-walks
The bobwhite's liquid yodle, and the whir
Of sudden flight, and, where the milkmaid talks
Across the bars, on tilted barley-stalks
The dewdrops' glint in webs of gossamer?
—James Whitcomb Riley.

◆

Father Langstroth's article on page 797 of this number of the Bee Journal will be read with much interest by thousands of his admiring friends. It has been a long time since he has been able to contribute an article for publication, and now that he is once more permitted to do so, we may expect something further from his beneficent pen. The article referred to here, will prove of great benefit to those who, though greatly liking honey, have not been able to partake of it as freely as they might wish. Good milk, butter and honey are three of the choicest of man's blessings. No person should be deprived of enjoying the health-giving qualities of the third, when either of the other two—milk and butter—will prevent any of its occasional unpleasant effects.

◆

Expressions of regret for the former, mingled with "good wishes" for the present, management of the American Bee Journal are being received from many of the hosts of admirers of the "Old Reliable." We are deeply grateful for these expressions of good-will and encouragement. Prof. A. J. Cook, of Agricultural College, Mich.—that prince among American bee-keepers — wrote the senior editor as follows, on June 6, 1892:

> I am very sorry that you are forced, on account of ill-health, from your excellent work as editor of the "Old Reliable." We shall all miss you very much—your excellent counsel, your safe and wise judgment, your persistent efforts to keep all that is best, and to down all that is bad. We shall not utterly lose all, for you cannot, if you would, entirely withdraw from the work. We are all glad that the American Bee Journal goes into such able hands. We shall all wish for you the best fruits of the long-needed rest. I shall ever be a friend of the American Bee Journal.
>
> A. J. Cook.

◆

Visitors to the Exposition will be able to go comfortably and expeditiously from one part of the grounds to another and obtain advantageous views of the buildings. They may do this either in electric boats through the lagoons, or by the intramural elevated electric railway. There will be five miles of double track and stations at convenient points. The route, as mapped out, runs from one end to the other of the grounds in a sinuous course. The fare will be 5 cents, and the capacity of the road about 20,000 an hour.

A Rich Honey Harvest may yet result before the season is over. It is said that late seasons are usually better than early ones, as they are much longer, extending far into the fall of the year. If such should be the case this year, all may yet be well for those who succeed in getting their bees through the unfavorable spring and early summer. The *American Bee-Keeper* for June has the following very encouraging words to offer about the apicultural prospects:

> "This certainly ought to be an unusually good honey season, as the long-continued rains will make a serious drouth almost impossible; and we have always noticed that when there has been a severe winter or spring resulting in a heavy loss of bees, there was invariably an abundance of nectar. Those who have carried their bees through successfully this spring, will doubtless reap a rich harvest."

◆

Score Another Point in favor of the National Bee-Keepers' Union. Its moral influence is even more important than its financial support. The strength of a body corporate is wonderful when it is exerted in defending a righteous cause.

Some time ago, J. H. Andre, of Lockwood, N. Y., when sending to the General Manager his fee for membership for the present year in the Bee-Keepers' Union, wrote: "I may not keep bees but a short time, but I shall feel more safe if I am backed by the Union." Mr. Andre is in poor health, and is hardly able to do the work in the apiary, and that is what he means by saying that he "may not keep bees but a short time."

Subsequent to this, a disagreeable neighbor threatened to sue him for damages, said to be done by his bees. Mr. Andre sent for some copies of "the decision of the Supreme Court of Arkansas," and circulated them around his neighborhood. The result was magical, and he writes thus: "When they found that I belonged to the National Bee-Keepers' Union, they wanted nothing more to do with the matter."

This is but one of the many proofs of the advantages to be derived from a membership in the Bee-Keepers' Union. Truly, "in union there is strength." The Bee-Keepers' Union is a veritable "stronghold for defense," is worthy of the esteem of every apiarist, and should have a *hundred thousand members.*

◆

Thin Comb Foundation samples have been received from Mr. C. W. Dayton, who is now at Greeley, Colo. The foundation was made on a Vandervort mill, and are very fine indeed. One sample runs 14½ square feet to the pound, and the other 13 1-7 square feet. Mr. D. thinks that with extra care in dipping the sheets, it can be made 16½ square feet to the pound. Mr. Dayton contributes an interesting article to this number of the BEE JOURNAL, on "Bee-Keeping in Colorado, Iowa and Wisconsin." Read it.

◆

A German Bee-Keeper says: "I have business relations with some 73 societies, and have become personally acquainted with more than 3,000 bee-keepers. Among the 3,000, I do not know of one drinker." What a splendid record for sobriety and good habits! We often wonder whether as much could be said of American bee-keepers. We hope so, but somehow we can almost hear a good many say, "I don't know," about that. We believe most emphatically that there is not another class of persons in existence that can show any more honest, industrious and *sober* men in its ranks than the industry of bee-keeping.

◆

Circulars have been received at this office from the following:—

Leininger Bros., Fort Jennings, O.—Italian Queens.

J. P. Moore, Morgan, Ky.—Italian Queens and Bees.

N. A. Knapp, Rochester, O.—Bees, Queens, Chickens and Ferrets.

The Apiarian Exhibit to be made at the World's Fair next year was written about by Dr. Mason, on page 760, of last week's BEE JOURNAL. Reference was therein made to something that Mr. W. I. Buchanan, Chief of the Agricultural Department, would publish soon, regarding the bee and honey exhibit. Below we give the special rules, and also an illustration of the proposed glass cases in which the exhibit will be made. We commend what Mr. Buchanan has to say, to the attention of our readers, and trust that they may now begin to prepare for one of the grandest apiarian shows that the world has ever seen. Here are the "Special rules and information governing the exhibit of Bees, Honey, Beeswax and Bee-Appliances :"

1. Exhibits of honey will be classified as follows :

Class 1. Clover and Basswood.
Class 2. White sage.
Class 3. Buckwheat.
Class 4. All light honey, other than enumerated in Classes 1 and 2.
Class 5. All dark honey, other than enumerated in Class 3.

2. Exhibits of honey produced during 1892, or earlier, must be in place on or before April 20, 1893.

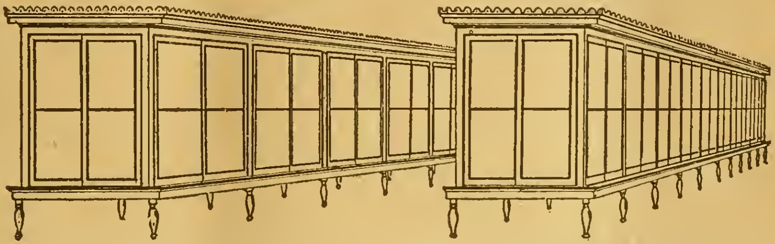
3. Exhibits of honey in Classes 1, 2, and 4, produced during 1893, will be received between July 15 and Aug. 15 ; and in Classes 3 and 5 between Aug. 15 and Sept. 1, 1893.

4. The following information should accompany each exhibit.

a. Kind of honey.
b. Name of exhibitor.
c. Place where produced.
d. Character of soil in locality where produced.
e. Variety of bee.
f. Name of plant from which honey was produced.
g. Yield per colony.
h. Average price of product at nearest home market.

5. In order to secure a uniform, handsome and economical installation of honey and beeswax, the Exposition will erect suitable glass cases, of a uniform character, in which such exhibits will be made ; the cost of these cases to be borne by the different State Commissions, Bee-Keepers' Associations, or by individual exhibitors, in proportion to the number of lineal feet occupied. These cases will become the property of such exhibitors at the close of the Exposition. Below is a very good illustration of the proposed cases.

6. Individual exhibits of comb honey will be limited to 100 pounds, and may be made in any manner the exhibitor may desire, subject to the approval of the Chief the Department.



The dimensions are as follows : Height of base, 18 inches; width of case, 5 feet; height of case above base (inside measure), 6 feet; total height, 8 feet. It has sliding doors on both sides.

7. Individual exhibits of extracted honey must be made in glass, and must not exceed 50 pounds.

8. Individual exhibits of beeswax must not exceed 50 pounds, and should be prepared in such a manner as will add to the attractiveness of the exhibit.

9. Exhibits of primitive and modern appliances used in bee-culture, both in this country and abroad, will be received subject to the approval of the Chief of the Department.

10. Special arrangements will be made by the Chief of the Department for a limited exhibit of bees.

11. Collections of honey-producing plants, suitably mounted and labeled, will be accepted if satisfactory to the Chief of the Department.

12. The right is reserved to add to, amend or interpret the above rules.

Signed, W. I. BUCHANAN,
Chief, Dept. of Ag'l.
Approved, GEO. R. DAVIS,
Director General.

The Premium List on Bees and Honey, as offered by the State Fair to be held at Lincoln, Nebr., on Sept. 2 to 9, 1892, is as follows:

LOT 1.—Bees and Honey.

POINTS FOR THE JUDGMENT OF HONEY.

COMB HONEY.—1. Perfection of capping. 2. Evenness of surface. 3. Whiteness of capping. 4. General appearance as to marketability.

EXTRACTED HONEY.—1. Cleanliness. 2. Clearness. 3. Flavor.

Best comb basswood or white clover honey, not less than 20 pounds, crated and in single-comb sections weighing not more than 2 pounds each—1st premium, $10; 2d premium, $5.00.

Best comb fall honey not less than 20 pounds, crated and in single-comb sections weighing not less than 2 pounds each—1st, $10.00; 2d, $5,00.

Best gallon of extracted white clover or basswood honey—1st, $5.00; 2d, $3.00.

Best gallon of extracted fall honey—1st, $5.00; 2d, $3.00.

The above is limited to competitors producing their own honey in Nebraska during the year 1892.

Best 20 pounds of granulated honey—1st, $5.00; 2d, $3.00.

Best and largest display of any one, including bees, extracted comb honey, and apiarian supplies—1st, $15.00; 2d, $10.00.

Best exhibit of brood-chamber and surplus comb foundation, full to partly drawn—1st, $10.00; 2d, $5.00.

Best exhibit of apiarian supplies and implements—1st, $15.00; 2d, $10.00.

Best display of honey in marketable shape—1st, $10.00; 2d, $5.00.

Best display of honey candy, honey sugar, and sweets by any one, in which honey is made to fill the place of sugar—1st, $5.00; 2d, $3.00.

Best honey vinegar, not less than one-half gallon—1st, $3.00; 2d, $2.00.

Best display of bees and queens in observatory hives, and not allowed to fly—1st, $10.00; 2d, $5.00.

Best exhibition of extracting honey, to be exhibited on the grounds under the direction of the Superintendent, not later than Thursday of the Fair—1st, $10.00; 2d, $5.00.

Best honey extractor, test to be made by actual extracting upon the grounds—1st, $5.00; 2d, $3.00.

Best all-purpose single-walled hive—1st, $2.00; 2d, $1.00.

Best all-purpose chaff hive—1st, $2.00; 2d, $1.00.

Best bee-smoker—1st, $1.00; 2d, 50 cents.

The following is confined to exhibitors in Nebraska alone:

Best display of apiarian implements and supplies, including comb foundation, same full to partly drawn, and queens and bees in cages—1st, $10.00; 2d, $5.00.

Best report of surplus honey, stored by any colony of bees during the year 1891, the amount of stores, manner of building up, handling, kind of hive used, and kind and quality of stores, to be verified by owner, entries to conform with other entries of this class, and report with verification to be filed with the Superintendent not later than noon on Thursday of the Fair—1st, $15.00; 2d, $10.00; 3d, $5.00.

LOT 2.—Discretionary.

This lot is intended for any and all articles which may have been omitted in any of the foregoing lots in this class, and might properly have been included therein.

◆

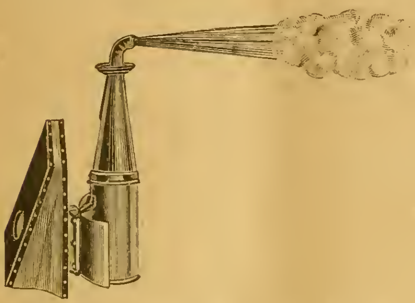
Our Thanks are due the *American Bee-Keeper* for the following paragraph of pleasant references:

"It is with much regret that we note that Messrs. Thomas G. Newman & Son have sold the AMERICAN BEE JOURNAL. Brother Newman has been its editor for many years, and has conducted it in a manner commendable throughout. His continued ill-health has compelled him to take this step. Messrs. George W. York & Co. will continue the publication of the AMERICAN BEE JOURNAL, and will doubtless do so in a manner pleasing to all its readers. Mr. York has been assistant editor for some time past, and so the editorial mantle falls gracefully on his shoulders."

◆

The Globe Bee-Veil, which we offer on the third page of this number of the BEE JOURNAL, is just the thing. You can get it for sending us only three new subscribers, with $3.00.

The Bingham Bee-Smoker, as recently improved, and described on page 601, we show to our readers in the engraving below. It represents one of the modern advances in the perfecting of apiarian appliances, and Mr. Bingham deserves the thanks of all progressive apiarists for his efforts to aid in facilitating the management of bees. In a letter to us he says:



Bingham Perfect Safety Bee-Smoker.

"I have a letter from Mr. O. J. Hetherington, in which he says, 'It is just the thing.' It is so handy, and is just what every bee-keeper will appreciate. It is so nice to be able to send the smoke where you want it, without turning the smoker upside down. Mr. H. says it will be so nice for handling sections, as the door or nozzle handles so nicely. I think the smoker is now perfect, and the weaknesses it had are now overcome; hence, I call it the "Perfect Safety Smoker."

* * *

Keep Your Feet Dry, is very good advice, and should be heeded. Many are the complaints that are caused originally by wet feet. The following is recommended as a very good preparation to render the leather of your boots or shoes waterproof, thus better protecting the feet:

> "Take two parts of linseed oil, one part of mutton tallow, and one part of beeswax. Melt and mix thoroughly together. Dry and warm the leather, and apply the mixture with a brush. It makes your understandings perfectly waterproof."

Best Honey Crop for Years, is what some bee-keepers expect this year. Mr. C. H. Dibbern, in the *Western Plowman*, says this about the "dark cloud" that worried bee-keepers the past few weeks:

> But happily there is a "silver lining" to this cloud of general despair. Rains and cold weather have brought out the white clover in the best possible condition. With fairly good weather during the next six weeks, we will in all probability secure the best honey crop we have had in three years. Two years ago our bees were in fine shape, in a good trim for the harvest, but as there was no honey in the blossoms, what did it all amount to? We will now have less bees to look after, and can take better care of what remains. If we produce a fair crop of honey, it will likely be of a fine quality, and should find a good market and fair price.

* * *

The Scotch people are pretty hard to get ahead of in many things, and the following is but a fair sample of the proof that they are not far behind some other people who are noted for "tricks that are vain:" "A speculative Scotch gentleman wanted to dispose of some bees; so, to attract purchasers, he printed the following placard: 'Extensive sale of live stock, comprising no less than 140,000 head, with an unlimited right of pasturage.'" The ingenious trick succeeded to admiration, for his 'stock' brought high prices.

* * *

The Chief Motive Power for the machinery at the World's Fair will be supplied by a gigantic engine, to be furnished free to the Exposition by the E. P. Allis Company, of Milwaukee. The engine will be furnished as a part of the company's exhibit. It will be of the quadruple expansion type, and will be of between 3,000 and 4,000 horse-power. Compared with this engine the big Corliss that was exhibited at the Centennial Exposition at Philadelphia, is almost a dwarf. In 1876 the Corliss was considered one of the wonders of the Exposition, but its builder rated it at only 1,400 horse-power, or less than half of the one being built by the Allis Company.

The Tapestry Weavers.

Let us take to our hearts a lesson—no lesson can braver be—
From the ways of the tapestry weavers on the other side of the sea.
Above their heads the pattern hangs; they study it with care;
The while their fingers deftly work, their eyes are fastened there.

They tell this curious thing, besides, of the patient, plodding weaver:
He works on the wrong side evermore, but works for the right side ever.
It's only when the weaving stops, and the web is loosened and turned,
That he sees his own handiwork—that his marvelous skill is learned.

Ah! the sight of its delicate beauty, how it pays him for all his cost;
No rarer, daintier work than his was ever done by frost.
Then the master bringeth him golden hire, and giveth him praise as well,
And how happy the heart of the weaver is, no tongue but his own can tell.

The years of man are the looms of God, let down from the place of the sun,
Wherein we are weaving alway, till the mystic web is done—
Weaving blindly, but weaving surely, each for himself his fate.
We may not see how the right side looks; we can only weave and wait.

But looking over the pattern, no weaver need have fear,
Only let him look clear into heaven—the perfect pattern is there.
If he keeps the face of our Savior forever and always in sight,
His toil shall be sweeter than honey, his weaving is sure to be right.

And when his task is ended, and the web is turned and strown,
He shall hear the voice of the Master—it shall say unto him, "Well done!"
And the white-winged angels of heaven, to bear him thence, shall come down;
And God for his wages shall give him, not coin, but a golden crown.—Selected.

Paste for Labels.—The following is a recipe for a paste that will stick to anything:

Take three parts of sugar of lead, three parts of alum, five parts of gum arabic, and 16 parts of good wheat flour. Dissolve the gum arabic in two quarts of warm water; when cold stir in the wheat flour, and add the sugar of lead and alum, which must have been previously dissolved in water. Cook until it shows signs of ebullition. Let it cool, and it is ready for use.

Queries and Replies.

Is Non-Granulation Proof of Adulteration

QUERY 823.—If extracted-honey does not granulate, can it be considered a sure proof of adulteration in all cases?—Canadian.

No.—DADANT & SON.

No.—C. C. MILLER.

No.—R. L. TAYLOR.

No.—G. L. TINKER.

Not in all cases.—J. P. H. BROWN.

No, not in all cases.—MRS. L. HARRISON.

No. Some honeys do not granulate.—G. M. DOOLITTLE.

No; some kinds of honey will persistently refuse to granulate.—C. H. DIBBERN.

No. I have had pure extracted honey that would not granulate.—J. M. HAMBAUGH.

No; although it makes us suspicious, and it should be tested further.—P. H. ELWOOD.

No. I have some Alsike honey that is nearly three years old, and is not candied.—A. B. MASON.

No, not in every case. I have had some extracted honey that never granulated.—E. FRANCE.

I think not. I believe there may be some kinds of honey that do not granulate.—EUGENE SECOR.

Some extracted honey granulates very slowly, and it is said, some not at all. I have never had any of the latter kind, however.—M. MAHIN.

By no means. I have had several specimens of very nice undoubted honey in our Museum for years, and it has never shown any signs of granulation.—A. J. COOK.

No. Some California honey does not granulate. There may be other varieties that do not. Pure honey may be heated so hot that it will not granulate again.—JAMES A. GREEN.

I should not like to say so, though granulation is considered a proof of purity. I know that nectar from some sources will granulate much more readily than from others, and there *may* be plants producing nectar which will not granulate at all.—Mrs. J. N. Heater.

As a rule, yes. There may be exceptions, but I should look with suspicion upon such. Some honeys will granulate far more quickly than others, but granulation is a sure test of purity.—J. E. Pond.

"No." I have had many cases where honey taken from the same extractor would granulate in a short time, and other bottles that remained as put up for one, and in some cases, three years. —H. D. Cutting.

Oh, no. Honey from some sections of Texas hardly granulates at all, while honey gathered in northern parts of the State granulates very quickly. I think age enough might cause any pure honey to granulate. I suppose our Canadian friend means in a reasonable length of time.—Mrs. Jennie Atchley.

Lots of pure honey refuses to granulate. The thicker and riper, the less likely to do so. *Yes*, that is so. I have had plenty of experience with tons of extracted honey. Then, again, honey mixed with cane sugar or glucose, *will* granulate. That is so, too, as strange as it may seem.—James Heddon.

No, sir. Honey as a rule candies or granulates, and this is good evidence of its purity; but I have seen pure good honey that would not granulate, or candy. I have a jar of honey ten years old that I took from the hive with my own hands, and it has never granulated. It is to-day, thick, pure of flavor, with no signs of granulation. I have seen plenty of samples of pure honey that will not granulate.—G. W. Demaree.

While the granulation of extracted honey is good proof of its purity, the lack of it is *not* positive proof of its impurity. Some kinds of honey, in particular localities, will not granulate, even if kept for many years.—Editors.

◆

Some did not quite comprehend the notice of sale as published on page 727. Messrs. Thomas G. Newman & Son have *not* disposed of the Bee-Keepers' Supply Business or the *Home Journal*. Both will be continued as heretofore, at the same location as before, 199 East Randolph St., Chicago, Ills.

Topics of Interest.

"There is Nothing New Under the Sun."

REV. L. L. LANGSTROTH.

I send you an extract from an old and very rare book in my library. I copy it just as it is—spelling, capitals, etc.:

Samuel Hartlib,
his
LEGACY
of
Husbandry,
London, 1655.

"Some Physical uses of Milk, and of Curing the Black Jaundice, &c." Page 261.

"I thought to have imparted unto you the Secret how to preserve Milk from souring, but I must refer it to a person of singular Honor, Piety, and Experimental learning who has made some trial of it, but has not fully satisfied his mind about it.

As for Doctor Ziegler's Germane Book, written purposely on the subject of Milk, when I visited him at *Zurich* he shewed it me, not fair written for the Press. It will not be great, unless he resolved to add much of his own experience. For he tells mee, that, being miserably infected with the *Black* Jaundies in *Prussia*, and having been purged by the Physicians of that Country, with above 30 several sorts of purgations, even the most violent they could think of, he found himself never the better. Whereupon he resolved to take no more of their Counsel, but to try some conclusions of his own. And with the sole use of Milk he was perfectly cured. Besides he tells me that he hath several times, finding himself in some indisposition, prevented the returning of some hereditary diseases in himself, by abstaining from all manner of meat and drink, and living upon meer Milk, sometimes for fourteen days together. And I remember heretofore I have heard him say, that Milk is hurtful with other meats, but alone it is of unknown vertue."

I have requested that the above be given with the quaint spelling and capital letters used by Hartlib.

Now, if any are disposed to try this

milk diet, they may, especially if bee-keepers find much benefit from it. We know that milk is good for babes; and I can testify from my own experience that it is very good for the aged, who may not be very far off from "second childhood." Infants need to be fed frequently. Let me suggest that old people require the same, and many of them are great sufferers by adhering to the old rule of three meals a day, and nothing between these meals. If upon the milk diet, I would by no means recommend that it should all be taken in the hours of the regular meals, but at much more frequent intervals—in short, as often as the appetite craves it.

Let me give a leaf from my own experience, when I was so constantly handling bees. My dear wife once said to me, "How strangely your appetite for milk seems to vary! Sometimes you care nothing for it, while at other times you seem almost to live upon it; and often you drink a quart or more at a single meal." Having my attention thus called to the matter, a new and interesting train of thought occurred to me. I often remember hearing persons say, "Mother would never allow us to eat new honey unless we drank milk with it, because otherwise it gave us the colic."

Extending my inquiries, I became satisfied that milk is an antidote for bee-poison; for when I was not working with bees, I cared little or nothing for it; and it was only when my system was fairly saturated with bee-poison, that I had an almost insatiable craving for milk. I then began to study what eminent writers had to say about any connection between milk and honey, and found that, from the time of Hippocrates, who was born 460 years before the birth of Christ, down to modern times, successive testimony could be found as to the value of milk to prevent any injurious effects from eating honey.

Notice, now, how frequently the sacred Scriptures commend the Holy Land as a land flowing with *milk and honey.*

Notice, also, the curious association of milk with honey in "the Song of Songs, which is Solomon's"—Chap. 4:11: Thy lips, O my spouse, drop as the honey-comb; *honey and milk* are under thy tongue.

PERHAPS THERE IS SOMETHING NEW UNDER THE SUN.

The bridegroom, meaning to compliment his spouse, says, "honey and milk are under thy tongue;" which is the same as saying, "Thou art a very sweet-mouthed woman!"

In conferring with Mrs. Kerr, my friend and next-door neighbor, she said to me, "My mother, who was a German, often made us eat *butter* with *honey*, because it prevented honey from giving us the colic. This immediately suggested to my mind a new train of thought. In Isaiah 7:15, it is written of the Holy Immanuel, "Butter and honey shall he eat," etc. Verse 22, "And it shall come to pass, that, for the abundance of milk, that they shall give, he shall eat butter; for *butter and honey* shall every one eat that is left in the land." See, also, Job 20:19: "He shall not see the brooks of honey and butter." Unquestionably, milk and honey, and butter and honey are, in the Bible, closely associated together.

In an article I wrote in 1870 for the American Bee Journal, I announced my discovery of the reason why honey so frequently disagrees with those who eat it. I showed that it was scarcely possible to take it from the bees, either in the comb, or in a liquid state, without more or less of the bee-poison being in it; that if any one said to me that he could not eat honey with impunity, I could assure him that, by bringing it nearly to the boiling-point, the bee-poison, which is very volatile, would escape, so that he could use it freely, while if a very little of this poison was put into any syrup which he had before used with impunity, it would affect him just as honey did. Unquestionably, the sacred writers who so often refer to milk and honey, and butter and honey knew that milk or butter added to the honey prevented the pain caused to so many persons from eating pure honey alone; and thus milk and butter were so frequently spoken of in the same connection.

Might not cheese, another product of milk, be also the right thing to use with honey?

Putting all these things together, it will be seen how naturally I was led to what, I think, is something new in exegesis, and gives a better understanding of some passages in the Word of God—"The good land!" "The land flowing with milk and honey!" Wherever milk is found in abundance, there, as a matter of course, will bees and honey also be found.

At some future time I may give my readers a new exegesis of some other passages of Scripture relating to bees.

Dayton, Ohio, June 6, 1892.

Some Things Learned in Bee-Keeping.

O. W. WARNER.

When I commenced to take care of bees I bought a pattern hive; it had holes, and a screen over them, and as I had no experience with bees, I thought the holes were necessary, so the first hives I made were 10x11 inches, and 11 inches deep, with an alighting-board at the top in front of each box; so I used two boxes, which made a hive 22 inches deep. I bored a 1½ inch hole in the back of each box, on which I tacked wire screens.

I soon found that where there was a strong colony, they would seal up all cracks, and also would seal up the wire screen. The reason the weak colonies did not seal up the ventilator, was because there was not enough warmth to make their wax congeal. If you will examine you will find particles of wax that have dropped, whereas if there had been enough heat, the wax would have stuck.

I find that tin-pan and bell rattling is not necessary to settle swarming bees. Instead of making all the noise I could, though it was necessary to do something to keep the bees from running away, I do not make any noise, but let the bees settle. I never use water, unless there is a swarm that has come out unseen, and is found clustered, then I sprinkle them for fear the scouts will return before getting them hived.

The other day a swarm came out, and as they were alighting, another issued, and commenced to alight on the first swarm. I put a quilt around them, and the second swarm commenced to alight on a pear limb near the ground. Soon they commenced to alight on the ground. I got the hive, put it on the ground under the limb, shook the bees off the limb, and they went into the hive. When I went to move them to a stand, I saw a few bees running around, excited, on the ground. I locked, and there I found a dead virgin queen. I found a frame of comb with a queen-cell on it, and put it in, and they stayed, and are at work. What killed the queen?

I find the best hive for extracting is 14x14 inches, and 11 inches deep. The front and back are 16 inches, sides 14, and then a strip 16 inches long, and 1x1½ inches nailed at the bottom outside; the top strip 18 inches. Now let the top strip extend 2 inches in front, and take a strip 1x3 by 16 in. nailed in front for an alighting-board. I use two boxes. I can put either box on top if I wish, and can take the boxes apart, and divide the bees, as the frames will fit either part.

Moab, Utah.

Bee-Keeping in Colo., Iowa and Wisconsin

C. W. DAYTON.

Hearing much about Colorado as a bee and honey country, about the middle of April I sold my apiary in Wisconsin and came to work in an apiary this summer in contemplation of moving my Iowa apiary here by another season.

Having been here, now, a little more than a month, and as we are nearing the honey harvest, I can begin to look back over the records of the colonies and see how they compare with those of Iowa and Wisconsin.

First, Coloradoans claim that they can winter the bees well out-of-doors, in single-walled hives. That is a fact. They nearly all do. But they are doing the same, too, in Iowa and Wisconsin, these easy winters. We have had so many easy winters *lately*, that they leave the colonies on the summer stands more and more. I remember in 1876, 1877, 1878, 1879, 1880, and 1881 they did just that way, too—let the bees remain on the summer stands. One bee-keeper had one colony left out of 137; another 3 out of 60; another 60 out of 170; another none out of 20, and so on. The next winter the bees all went into the cellar in hot haste; every last bee went into the cellar, or a big chaff hive.

Now it looks as if we were as liable as ever to experience a winter that is no joke to the bee-man, but a big joke for old Borealis to play.

It was described in one of the March numbers of the AMERICAN BEE JOURNAL how I winter my bees in a special repository where the temperature was at 62°. Those colonies were put out on April 16, and were apparently as populous as when put into winter quarters. Most of them crowded every space in 8-frame Langstroth hives.

The colonies which were wintered indoors were almost entirely without brood—not more than 3 square inches in any hive. Very few colonies wintered out-of-doors had a patch of brood half as large as my hand on April 15. That has been the condition of my colonies right along one winter after another in

Iowa and Wisconsin. Here I give a table showing the amount of brood in 25 colonies on the different dates in Colorado. That the amount of honey that is gathered is directly dependent upon the amount of brood the colonies have about 30 days before the harvest begins, is remembered.

No. of Colony on Register.	No. Frames Mar. 5.	Brood. May 27.	Kind of Hive for Winter.
104	2	4	Single Wall
105	1	4	Chaff
106	2	4	Single Wall
107	2	3	Single Wall
108	3	7	Chaff
109	3	4	Single Wall
110	2	5	Chaff
111	2	4	Chaff
112	3	4	Chaff
113	3	5	Single Wall
114	3	5	Chaff
115	2	3	Single Wall
116	2	4	Chaff
117	2	6	Chaff
118	3	5	Single Wall
119	3	4	Single Wall
120	4	5	Single Wall
121	3	4	Chaff
122	3	4	Single Wall
123	3	5	Single Wall
124	0	0	Single, dead
125	3	4	Chaff
126	3	4	Single Wall
127	2	3	Chaff
128	0	0	Single, dead

The table shows that the eleven colonies in chaff hives contain 50 combs of brood, and the 14 colonies in single-walled hives have the same number, indicating that the chaff hives are rather the best for winter and spring in Colorado. The live colonies average a little over 4 combs of brood each at this date. My old rule, and a rule I have followed out in Iowa and Wisconsin for years, is to have the colonies average from 6 to 7 combs of brood from May 20 to 25. Only one season in the last ten have they failed to average 6½ combs of brood on May 25, and that was pronounced a very late spring.

The honey harvest here opens on June 15 to 20, the same time as in Iowa, on the 43rd parallel; and those colonies which have 6 combs of brood on May 25, are able to take good advantage of it. If a colony has more brood than that, they were reduced to help weaker colonies; and if a colony had only 5 combs of brood on May 25, then the honey harvest was a few days ahead of them. What the outcome will be I cannot say, but, if the harvest comes on time, the bees are from one to two combs of brood below what they should be.

In Colorado the honey is nearly all from alfalfa—a plant very much resembling clover, but larger in growth, and it is said to yield honey for about 40 to 60 days, white clover and basswood seldom last over 20 days. With so long a harvest even weak colonies should have time to build up to the best strength, and do good work for a month or more.

Basswood and clover often yield at the rate of 10 to 15 pounds of honey per colony per day. The harvest being so short, and there usually being several cloudy days during the harvest, prevented our getting a very large yield, and one year there were barely seven days, from spring until fall, when the bees laid up a surplus of honey. Still, in that short space of time my colonies harvested an average of nearly 70 pounds of extracted honey per colony. In order to do it the colonies had to be up and doing the first day the yield of honey came. Here, with this probable lengthy honey-flow, it seems to me that the yield per day must be rather light, or we would hear of some astonishing reports from this State.

Every one here says this has been an *unusually cold, stormy spring.* I have heard that (I was going to say) one thousand times. I have heard it so much that it has become a veritable "chestnut."

The best way to make the spring early is to make the bee-hives warmer, and give the bees some stimulating food. There is very little if any honey to gather here before the alfalfa blooms; also a great scarcity of pollen to encourage brood-rearing until cottonwood blooms. I saw the bees so eager to gather pollen about April 27, that they would pay little attention to honey, and would not rob. This never happens in Iowa or Wisconsin. There is not enough to assist in supporting the pollen theory, yet many colonies have diarrhea, as I have noticed.

What is most noticeable in springing bees in Colorado, is the large amount of brood all through March and April, and which does not increase very rapidly until May 15, or later. The cause of this is, that it is very warm when the sun shines, and very cold when it does not shine, and there are many sunshiny days all through the winter.

These warm days thoroughly arouse the bees like mid-summer, and starts them to breeding very early; then comes the cold nights and days that checks brood-rearing; then the warmth again; so that the wear and tear on the old bees is so great that strong colonies on March 1, get weaker and weaker until sometime in May, when the warmth helps them to increase again.

But unlike Iowa and Wisconsin the old bees which go into winter quarters in the fall are entirely gone by May, if not in April, and the colony then consists of few newly-reared bees not worn by labor or age, and which may live to rear brood and help gather honey. When a colony consists of these young bees it becomes very tenacious to life, and in cases of weak colonies they may become very weak and still keep up their courage, and not dwindle away like the colonies of old bees do in Iowa. But the cold nights and cloudy days (which are always cold) seem to continue so late in the spring that the colonies do not have time to build up before the alfalfa is in bloom.

This continual breeding takes large amounts of stores—probably about 50 to 60 lbs. to last from one honey harvest to the next; and with all this consumption of stores and labor by the old bees, the colonies all through February, March, and April continue to get a little weaker, showing that it costs the life of more than one old bee, besides the honey consumed, to rear a young bee; and that if the old bees can be made to live until warm weather without rearing brood, it is by far the most economical plan.

In April the colonies are the smallest, and build up like weak colonies, but the vitality of the bees being of the very best, they are able to do considerably more than the same number of old bees would do in Iowa or Wisconsin.

When the colonies are put out in Iowa, and the weather warm, the hive being crowded with old bees, the queen will have 4 to 6 combs nearly full of eggs and brood in 10 to 20 days. When the old bees die it is by thousands; so when the brood begins to hatch that goes by thousands, and the places of the old bees are more than supplied at once.

Although Colorado is a very large State, good locations for apiaries are very scarce. Four-fifths of the country would not support bees at all, because alfalfa does not grow everywhere. It is not raised nearly as much as it might be, and never will spread all over the State like clover in Iowa and Wisconsin. All crops depend upon irrigation with the snow-water that comes from the mountains, and which quantity can supply only a limited amount of land situated near by; and it is only along these irrigation ditches in certain and favored spots where bees thrive; just about like the basswood ranges in Iowa; but it does not compare with the basswood of Wisconsin, nor the white clover of any of those States. The color and flavor of alfalfa honey is about the same as basswood, and Luzerne apiary took nine tons of it as last year's crop, one-half in the comb, with 30 or 40 per cent. increase of colonies.

Alfalfa is practically the *only* honey producer here, and this apiary, so far as I can learn, is the best equipped in the State. Over 100 of the new Heddon hives are in use, and its proprietor has purchased the exclusive right of that hive for Weld county.

The average per colony is about the same as in Iowa, as some who keep bees get very little honey in any season.

There is good prospects of sweet clover becoming, in time, a help to the bee-keeper, there being small patches of it started here and there.

One great drawback to the bee-business is the lack of market for the honey, and consequent heavy shipping expenses, which amounts to about 20 pounds per colony, and would bring the colony average of 80 pounds here, to the 60 pounds which I obtained in Wisconsin last year.

Greeley, Colo., June 3, 1892.

Haldimand Bee-Keepers' Convention.

E. C. CAMPBELL.

The meeting of the Haldimand Bee-Keepers' Association was held at Nelles' Corners, Ont., on Saturday, May 28, 1892, with President Israel Overholt in the chair, and thirteen other members present.

Eighteen members reported 550 colonies, fall count; and 498, spring count.

On the question, "Does it pay to build up weak colonies by taking from strong ones?" there was considerable discussion. The members generally thought that it did not pay.

A general discussion then ensued on various subjects of interest to bee-keepers, and a profitable time was spent. It was decided to hold the next meeting at South Cayuga, Wismer's Corners, on Saturday, Aug. 27, 1892.

A committee was appointed to see after the government grant, and to arrange as to prize money to the shows of Jarvis, Cayuga, Rainham and Dunnville.

A vote of thanks was tendered to Mr. Boyer, for the use of his hall, after which the meeting adjourned.

E. C. CAMPBELL, *Sec.*

The Wintering of Bees.

C. E. MEAD.

A box-hive or log gum is a better hive to winter bees in than one with hanging frames with narrow end-bars, both to be single-walled. In a log or box hive, each comb acts as a division-board. In a frame hive the heat goes around the ends of the frames, and perhaps over the tops of them, compelling the bees to warm the whole hive in order to exist.

A tall hive is better than a shallow wide one. Almost all box and log hives are taller than their diameter. The heat is always above the bees. The combs do not shrink and break the capping, causing the honey to absorb moisture and sour, giving the bees the diarrhea.

Closed-end bars, five frames wide and two stories high, with a tight top, flat on the frames, would make the conditions about equal, provided there was a hole 3 inches below the top-bar, in each comb in the top story, in place of sticks. Some may say, "What, no Hill's device over the frames or cushion?" I use a ⅜-inch board over the frames in winter, with two one-inch holes in it—one to feed salt and fresh water, and the other to feed syrup, if needed.

Box and log hives usually are better stocked with honey. My bees had from 30 to 50 pounds of honey last fall, in October, and would all have been dead a month ago if I had not fed them; 60 per cent. of them have nine Langstroth frames of brood, also drones, and have plenty of cups for queen-cells.

In 1866 I bought an old log hive—it was called by the farmer, "the old cannon." It certainly "fired off" a swarm and a box of honey, on an average, every year. It was about a 10-inch "bore" and 3 feet long. It was hung between two posts. A cow broke it down, and as it was about 20 years old, and most of the top knocked off, I got it cheap.

The bottom-board was gone as well, and between the combs at the bottom was filled with snow and frost. I poked it away with a stick. I found in transferring plenty of bees, brood, and in the top about 15 pounds of honey, as hard as maple sugar is usually made in Vermont. The log I tore in bits with my hands. It was rotten. That was the strongest colony of 35.

I winter my bees in two ways, one is with two 10-frame hives, four division-boards, and on from 8 to 10 Langstroth frames. The lower hive is raised one inch; two division-boards, equi-distant from the sides, sawdust between the sides and division-boards, one-half of the frames (the lightest ones) between the division-boards. I put clay (strained so as to be free from sand and gravel) on the top of the bottom-board; place the top hive on, division-boards in the same proportion as the lower one, and fill the space between the division-boards with the solid frames of honey. I then cover the frames and division-boards with a ⅜-inch board with two 1-inch holes in it, *laid* flat on the frames. Clay the top, and put on an empty super. Now fill the sides of the top hive and super with sawdust, put two ½-inch sticks across the super, and put on the cover. Do this immediately after the honey harvest, leaving the entrance wide open.

Put me down for bottom ventilation, and plenty of it, and tight top. I never lost a colony packed as above. It is some work to do it.

I also use bottom entrance, like Manum's outside case, tight top, and one or two story 8 or 10 Langstroth frame hives.

WINTERING NUCLEI.

I have wintered nuclei for several years successfully in this way:

Place a swarm strong in bees and honey on a Manum platform, entrance to the east. Cover the hive with a ½-inch board; place the rim around ⅜-inch higher than the hive, and room for 5 inches of packing. Now place the nucleus (with at least three solid frames, Langstroth size, of sealed honey or syrup) on top of the board, the entrance facing the south, and combs 1¼ inches from the bottom-board. Extend the entrance outside of the rim, covered so as not to be clogged with packing.

I taper the entrance to the outside; it is then 2 inches wide, ⅜-inch high, 6 inches wide at the hive, and 6 inches long. Make a small alighting-board. Raise the back end of nucleus hive one inch, and place a notched narrow rim over the entrance. Place a rim, or rims, so as to make them 6 inches higher than the nucleus. Put a ⅜-inch board (with feed holes) over the top of the nucleus. Now pack around and 6 inches above the nucleus, having ample ventilation at the top to keep the sawdust dry. Have at least one quart of bees in the nucleus. They are as warm as the big hive below, and breed up remarkably fast in the spring. See that they do not run short of stores. Do not stir them until steady warm weather, or until they need more room.

I have strong inclinations towards an unpainted, or white-washed hive, for wintering. The moisture dries out of it much quicker, making the wood a good non-conductor, something like a basswood leg.

Chicago, Ills., June 3, 1892.

Gathering Honey—Good Queens.

A. N. DRAPER.

On Saturday, June 4, I discovered that a large part of my bees were almost at the starvation point. I hustled up town, and before night I had a barrel of granulated sugar converted into syrup, and fed to them. In the afternoon I found that they had begun to work on white clover. Sunday the honey came in quite fast, and yesterday and to-day I have been getting surplus cases into place. The honey has been coming in very fast for the last three hours to-day, but the rain now (3 p.m.) has put a stop to it for the present.

My bees are in tip-top condition for the harvest, thanks to the "Miserable Frenchman," as Dr. Miller puts it. The colonies in big "Dadant hives" average the strongest in every way. If Dr. Miller will please explain how he gets just a little too much honey in an 8-frame Simplicity hive for a colony to winter on, he will confer a great favor—upon me at least. This spring, 11 frames of the size preferred by the Dadants have proved none too much. What bees I have in Simplicity hives I have given two stories, and both stories are pretty well filled with brood, in most of the hives. Of course, I have some weak colonies, but not nearly as many as commonly.

I reared a great number of queens *a la* Doolittle last summer, and I find that they average a better lot than any I have ever reared before. I give a good deal of credit for the fine condition of my apiaries at this date, to this extra fine lot of queens, and I am satisfied that I can, if any one can, compete with cheap sugar; that with large hives good queens, and lots of good dry leaves around the hives. I shall try my hand at comb honey this summer, as I can sell it at good prices. Comb honey in sections must be our hope now. With the best granulated sugar at 4¾ cents per pound by the barrel, where will extracted honey go?

The bottoms here will surely abound with Spanish-needle this fall—at least it looks now as though there ought to be water enough. There is also lots of young white clover coming up this spring. There will be a good honey crop from white clover next year, I think.

Upper Alton, Ills., June 7, 1892.

Wabash Valley Bee-Keepers' Convention.

FRANK VAWTER.

The Wabash Valley Bee-Keepers' Association met in convention in the City Hall at Vincennes, Ind., on Saturday afternoon, May 28, 1892, with Vice-President Cox in the chair.

Several new members were added to the Association.

It was reported that arrangements had been made to give $200 in cash premiums for bee and honey displays at the Knox county, Ind., Fair.

The Porter Spring bee-escape was exhibited, explained and approved.

The continued wet weather has had a bad effect on bees, as they cannot work in the rain. Many members reported loss of colonies by starvation during the month of May, which is something very unusual.

A specimen of a very pretty and new honey-plant was exhibited. It is known as "crimson clover," and is said to be a rich honey-producer. It is usually sowed in the fall.

A new disease there has made its appearance, which, for want of a better name, is called "bee-paralysis." The symptoms are a black and shiny appearance of the bees. They first act as though crazy, fall about, and soon die. The remedy is to transfer the colony to new combs, or give it a new queen.

It was explained that "5-banded" bees are not a new variety or strain, but simply a selection of Italians.

The next meeting will be held at the Mayor's office in Vincennes, at 10 o'clock on Aug. 17.

The membership of the Association should be greatly increased.

FRANK VAWTER, *Sec.*

CONVENTION DIRECTORY.

Time and place of meeting.

1892.
Aug. 17.—Wabash Valley, at Vincennes, Ind.
Frank Vawter, Sec., Vincennes, Ind.

Aug. 27.—Haldimand, at S. Cayuga, Ont.
E. C. Campbell, Sec., Cayuga, Ont.

Sept. 7, 8.—Nebraska, at Lincoln, Nebr.
L. D. Stilson, Sec., York, Nebr.

Oct. 7.—Utah, at Salt Lake City, Utah.
John C. Swaner, Sec., Salt Lake City, Utah.

1893.
Jan. 13, 14.—S.W. Wisconsin, at Boscobel, Wis.
Benj. E. Rice, Sec., Boscobel, Wis.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITORS.

North American Bee-Keepers' Association

PRESIDENT—Eugene Secor..Forest City, Iowa.
SECRETARY—W. Z. Hutchinson....Flint, Mich.

National Bee-Keepers' Union.

PRESIDENT—James Heddon ..Dowagiac, Mich.
SEC'Y AND MANAGER—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Hurrah for the Swarms!

Warm weather comes in with June, and "hurrah" for the swarms! Hives all ready! Chuck 'em in! Big swarms, too. Hip, hip, hee! isn't it fun? I think that in spite of the old saying, "a swarm of bees in June is worth a silver spoon," it will be worth a dozen silver spoons this year, as white clover is just coming to full bloom; it is a little "behind," just the same as the bees.

EDW. E. SMITH.

Carpenter, Ills., June 6, 1892.

White Clover Promises Well.

We have had a very backward spring in this locality. March and April were cold and wet, and the bees gathered only enough honey for brood-rearing. May has been wet, so the bees could not gather much honey. They have not swarmed much in this locality. I have had one swarm out of 16 colonies. The hives are overflowing with bees. White clover promises well. I have not seen bees work on white clover as heavy as at the present time. We have had favorable weather for nearly two weeks, and if the weather continues favorable through June, we may get some surplus yet, as the bees have commenced in the surplus sections. In this locality the spring honey season lasts until July 1, then the bees do not gather any honey unil the fall flowers commence to bloom, and that is the first or middle of August. The past years have been very favorable for fall honey for winter stores, and if this fall is similar, the bee-keepers surely ought not to be discouraged if they do not get much surplus honey this season, or just so the bees have enough for winter. I want to plant some linden trees this fall. Will some one tell me where I can get them?

CHAS. GUTH.

Santa Claus, Ind., June 5, 1892.

Making Use of Brood-Combs.

What is the best plan to make use of a lot of nice brood-combs? I wish to work my bees for comb honey, allowing each colony to swarm once. The time for swarming here is from June 15 to July 15. We may reasonably expect a fall flow of honey, if the season is not too dry.

SUBSCRIBER.

Brownville, Iowa, May 30, 1892.

[Give them to swarms, in place of empty hives. They will be thoroughly appreciated in that instance.—EDS.]

Bee-Keeping in Tennesee, Etc.

This has been the worst spring for bees for 30 years. It rains about every day, and it has been so cold for the last month that half the time a man had to wear a coat all day. It rained all the time that the poplar was in bloom, so bees got but little benefit of the bloom. White clover is in abundance here, but the bees cannot get out to gather any honey, on account of the cold wind and cloudy weather. I have 21 colonies, and they have not stored any surplus honey yet. Last year, at this time, I was selling honey, and now I have none for myself to eat; but it is not the bees' fault. My bees have not swarmed any this spring; they are not even strong enough for dividing. I put on some one-pound sections, and if the weather does not get warm and dry in a few days, they will be taken off empty. Provided that June is not warm and dry, our honey harvest will end the last of June, until September and October. I lost one queen in the winter, but the colony survived until spring; I then gave them some bees and a queen, and they are doing very well, considering the weather. I had another colony that the queen came out; she could not fly, and acted as if she was crippled. I put her back on the comb, and in a few months she was out again. I examined the comb, and found young larvæ, but no eggs. The queen was two years old this summer, so I killed her, and gave the colony two frames of brood and eggs. Now they have as fine a young queen as ever I saw. What was the cause of the queen leaving the hive? Was it for the want of something? Will Mr. Doolittle please answer? A. C. BABB.

Greenville, Tenn., May 30, 1892.

Bees Wintered Well.

The bees in this locality have winwell, with only a very small per cent. of loss. The weather has been unfavorable on account of the rains during the month of May. The locust trees are now in full bloom, and are humming with the busy bee from early morn until late at night. The white clover is just beginning to bloom, which is the main supply of the honey crop in this section. There is no pleasant weather to spare now. Every one should be ready for the honey crop, having the hives full of bees, and the sections ready for the surplus, all in "apple-pie order," so as not to lose one moment of time, as "time and tide wait for no man."

W. S. STEVENS.

Mechanicstown, O., June 6, 1892.

Ants in the Hives.

I have several colonies of bees that have a good many little red ants in them. How can I get them out, and keep them out? Please answer in the BEE JOURNAL. B. CHENEY.

Brandon, Wis.

[In Prof. Cook's "Manual of the Apiary," we find the following directions for getting rid of ants:—EDS.]

"You can very readily brush them away, or destroy them by use of any of the fly poisons which are kept in the markets. As these poisons are made attractive by adding sweets, we must be careful to preclude the bees from gaining access to them. As we should use them in the spring, and as we then need to keep the quilt or honey-board close above the bees, and as the ants cluster above the brood-chamber, it is not difficult to practice poisoning.

One year I tried Paris green with success. There are several reports of ants entering the hives and killing the bees; even the queen is said to have been thus destroyed. In such cases, if they occur, it is best to put a sweet poisonous mixture in a box and permit the ants to enter through an opening too small to admit bees, and thus poison the ants. Or we may find the ant's nest, and with a crowbar, make a hole in it, turn in this an ounce of bisulphide of carbon, and quickly plug it up by packing clay in the hole and on the nest. The liquid will kill the ants. This better be done when the ants are mostly in their nest."

Hard Time for the Bees.

The past two months have been a hard time for bees in this locality, it being cold and wet nearly all the time. I have 110 of the 114 colonies which I packed last fall, but they are not in very good condition to gather a large crop of clover honey. A. W. SMITH.

Parksville, N. Y., June 3, 1892.

Chaff Hives for Wintering Bees.

I am an old bee-keeper. I have now only 13 colonies of bees, having lost quite a number in winter, but mostly this spring, though I have been tolerably successful in the wintering of bees. Of late years I have wintered them in a stone milk-house, partly under ground, and having double doors. I placed the hives in this repository, raised a little above the bottom-board, and took off the top of the hives clear to the frames, then I put on about two feet of straw. Last winter I wintered two colonies in chaff hives out-doors, and I am so well pleased with that plan that I shall continue to winter all my bees out-doors in chaff hives. I have investigated this subject somewhat, and know of others who are having the best results by wintering bees in chaff hives. The 2 colonies thus wintered are far ahead of those wintered in the cellar. The combs came out in the spring dry and free from mildew, and the bees were active and healthy, with no great lot of dead bees, as is usually the case when wintered in the cellar. Last winter was a mild one, and it may be thought that that had something to do with the wintering of my bees; but I know a man in Chickasaw county, Iowa, who has wintered bees in chaff hives for years, and has always been very successful in thus wintering them. My chaff hives are made of common ship-lap lumber, covered with flooring; they take the Langstroth frame, and are high enough to enclose a super.

LAFAYETTE NORRIS.

Aurora, Iowa, June 2, 1892.

The Use of Bee-Escapes.

In this day and age when there are so many persons that are trying to get up something new in the line of bee-supplies, we very often are beaten by paying money for some useless thing, that someone patented; but we must be very careful and not buy before we investigate. I believe that a person who uses his brains, and gets up a really good article, ought to have the benefit of it. There has been considerable in the bee-papers of late about bee-escapes, and our attention has often been called to them. I used three different kinds of bee-escapes last season, and found that two of them did the work satisfactorily, viz: the Hastings and the Porter. The Hastings bee-escape will clean a case of sections in from 2 to 4 hours, leaving the case so quietly and quickly that it is nothing but fun to clean an apiary of its surplus comb honey. No bee-keeper ought to be without a good bee-escape, and I think after using it once, he will continue to do so.

W. E. CLARK.

Oriskany, N. Y.

Making Swarm-Catchers.

In years past the sentiment generally expressed was unduly opposed to patent rights among apiarists, but within the past year I have noticed patents have been granted on hives and other fixtures which have been in general use for years. I notice in a recent number of the AMERICAN BEE JOURNAL a patent has been granted on a swarm-catcher which I have had in use in my apiary for the past two years, and which was fully described by Robert Carver, on page 403 of the BEE JOURNAL for 1890. He there says that he had 20 in use in his apiary at that time. If I were going to make them, I would be glad to do it for $2.00 apiece. About the way they are made, and the cost, are as follows: Get some wire-cloth 36 inches wide, cut it diagonally, and you have the two side pieces. Then get another piece 28 inches wide, cut it in two in the middle, and you have two tops. We get the cloth here in the country town at 15 cents a yard. The cost of netting for each catcher would be about 25 cents; lumber not over 20 or 25 cents, leaving $1.50 for a few nails, paint, and about 2½ hours' work by hand.

HENRY DURHAM.

Sylvania, Ind., June 6, 1892.

Prospect of an Immense Crop.

It has been very backward and wet here this spring, having rained almost every day for a good while. We have had now two days without rain, and the bees are making good use of the good weather. I have not been around over the country very much, but where I have been there is a prospect of an immense crop of white clover. It is now beginning to bloom, also raspberries and blackberries, and I think that the bees will get along all right now. I started in the winter with 10 colonies of bees, and got through with 7. One colony came out on May 29, and went into another hive. They had no honey, and but very little brood.

H. T. LATHROP.

Willard, Iowa, June 6, 1892.

Stealing Eggs to Rear Queens.

Mr. Geo. E. Fellows mentions this subject on page 741. I have also seen the subject discussed before. The probability is that Mr. F. had some queens in his yard that were prolific layers, to that extent that several eggs were laid in some cells. Of course, all but one would be removed by the bees, and it might be possible that some over-nice house-keeper (or rather hive-keeper) when carrying them from the hive, dropped some at the entrance of the hive containing the queenless colony. This being the case, it would be nothing strange that they should be taken to rear a queen, no more than they should be taken from a cell in the ordinary way.

Several years ago I wrote an article on this subject, which never appeared in print. Probably the editor, to whom I sent my article, supposed my theory was foolish. Possibly at some time in the future it may be accepted as facts.

Lockwood, N. Y. J. H. ANDRE.

Space Under Brood-Frames.

It is a cold, backward spring, and colonies are weak in bees. I have 13 colonies, and have lost none yet. What is the best size of space under brood-frames for both summer and winter, with fixed bottom-boards, and wintered on the summer stands in chaff hives? I notice that some bee-keepers recommend a space up to ⅞ of an inch. Mine are ½ inch, with an entrance ½ to ⅝ inch, and 12 inches long.

GEO. A. COBB.

Windham, N. Y., June 4, 1892,

[It is not of much importance unless a space of more than ⅞ of an inch is given, and we prefer that size rather than anything smaller.—EDS.

Wavelets of News.

Sunflowers—History and Value.

It has been suggested that while we are sending Indian corn to Russia, and trying to teach the poor peasants of that country how to eat it, we should learn something from them in regard to the great value and usefulness of the sunflower. It is said that in the Czar's dominions 750,000 acres are devoted to the cultivation of the sunflower, and that every part of the plant is utilized.

From the seed an oil is expressed that is used in cooking, for salads and various domestic purposes, as olive oil is in other countries. The oil-cake is valuable for feeding cattle, and the dry stalks make an excellent fuel. The seeds of the larger varieties are used to an enormous extent by the people, very much as peanuts are eaten with us, but without being roasted. They are certainly excellent in flavor, as well as rich and nutritious.

But the strangest part of this story of the sunflower is that probably many centuries, if not thousands of years before Columbus sailed in his voyage of discovery, the inhabitants of this country were cultivating, or, at least utilizing the seed of this plant for food, and its flowers as sacred emblems in their religious rites.

The early inhabitants of America who worshiped the sun, used the sunflower in their religious ceremonies on account of its resemblance to the great source of light and heat. Historians who have investigated the subject inform us that the virgins who officiated in the Temples of the Sun in Peru, were crowned with sunflowers made of pure gold, and also carried them in their hands, besides wearing them on their breasts.

Historically it is the oldest plant of which we have any record, and this record extends back in America to a very early period, of which we know nothing except what we can learn from the imperishable relics of their handiwork scattered broadcast over the entire Western Hemisphere.—ANDREW S. FULLER, in *N. Y. Tribune.*

Dwindling of Colonies.

Spring dwindling is one of the dangers that beset bee-keeping, and imperil colonies. Dwindling occurs to some extent during spring, summer, fall, and winter. Dwindling occurs by reason of certain different causes, the most common one the failure of colonies to rear brood to the extent required to maintain an equal populous condition of the colony by reasons (often) of queens failing to supply sufficient eggs in due season, and perhaps workers sometimes mismanage breeding affairs; besides, the contingencies of unfavorable weather, chilly temperature, and undue careless exposure while the weather is fickle in changes of temperature. Colonies in a normal condition will reproduce more than equal to ordinary losses of old or imago bees, providing, however, brood-rearing goes along, as it naturally should.

Unless colonies are blessed with first-class queens, spring dwindling will be mooted and whooped up in all the bee-periodicals. Success in bee-keeping very largely depends on the prolificness of queens used. No such bee-hive as a "non-swarmer" ever was or can be contrived, but non-swarming queens are very common; yes, they have been advertised by certain breeders. It is a law of nature that all colonies of bees that remain in a primevous or prime condition will multiply individually, and multiply in colonies by swarming. The mandate is, "multiply and replenish."—C. J. ROBINSON, in *American Farmer.*

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Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line,** for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

WANTED—Everybody to send for sample of the Thinnest and Best Surplus Foundation made—14 to 16 square feet to the lb.
24A4t W. H. NORTON, Skowhegan, Me.

WANTED—Everybody to send me 10 cents in exchange for my little book, "The A B C of Ferret Culture." It tells all about the care and management of this little animal.
25Atf N. A. KNAPP, Rochester, Lorain Co., O.

FOR SALE—36 Improved L. Hives complete nailed and painted, $1 each; 2000 Sections, $5.50. Large sample pkg. Alsike clover seed, 10c.; lb. 30c.. prepaid. Large sample pkg. New Japanese Buckwheat. 5c.; lb. 20c., prepaid; per bu. $1.20.; sacks free. Warranted Italian Queens, $1.50. L. J. CLARK. Wiscoy, Minn.
24A2t

WANTED TO EXCHANGE—My new price-list of Italian Bees, White and Brown Leghorn Chickens, White and Brown Ferrets, and Scotch Collie Pups—for your name and address on a postal card. N. A. KNAPP,
25Atf Rochester, Lorain Co., Ohio.

HONEY AND BEESWAX MARKET.

CHICAGO, June 11.—Fancy comb honey is selling at 16c.; choice, 14@15c. Other grades 10@13c. Extracted, scarce, good demand, at 7@7½c. Beeswax, active sale, 28c.
S. T. FISH & CO., 189 S. Water St.

NEW YORK, June 11—No demand for comb honey excepting fancy white. Quite a stock on the market of off grades and buckwheat. New Southern extracted arriving and sells at from 70@75c. per gallon for choice; 65@70c. for common. Beeswax quiet but firm at 27@29
HILDRETH BROS. & SEGELKEN,
28-30 West Broadway.

KANSAS CITY, Mo., June 11—Demand light, supply ample. White comb, 10@12c.; amber, 8@10c. Extracted, white, 6½@7c.; dark, 5@6c. Beeeswax—Demand good, supply light; price, 22@26c. It looks as if old crop of comb will not be all sold before new crop is ready.
CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI, June 11. — Demand is good for extracted, slow for comb. Supply good of all kinds. Comb, 11@14c. Extracted, 5@8c. Beeswax is in fair demand, at 25@27c. for good to choice yellow. Supply good.
C. F. MUTH & SON,
Cor. Freeman & Central Aves.

NEW YORK, June 11.—Demand for comb is very small. Considerable comb honey on the market, of 2nd grade, but no fancy of any account. Some demand for extracted, clover 6@7c.; buckwheat, 5@5¼c.; Southern, 65@75c per gal.; Calif., 6½@7c. per lb. Beeswax—a little easier, with supply to meet demand, at 25@27c.; 1 to 2c more per lb. for extra select.
CHAS. ISRAEL & BROS., 110 Hudson St.

KANSAS CITY, Mo., June 11.—Old honey is cleaned up, both extracted and comb. New crop will be in about July 10, here.
HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, June 11.—Best white comb honey 12@13c.; but little left to sell. Extracted, 7@8c. Beeswax, 26@27c.
M. H. HUNT, Bell Branch, Mich.

CHICAGO, June 11—Very little choice comb on market; demand equals supply; sells at 13@15c.; dark, 10@12c. Extracted, very scarce; good demand; white sells at 7@8c., dark, 6@7c Beeswax is plentiful, fair demaud, 25@26c.
J. A. LAMON, 44-46 S. Water St.

MILWAUKEE, June 11—Demand very moderate, supply average of all grades but common quality. Best 1-lbs. 15@16c; common, 12@13c. Extracted, white, in barrels, 7c.; in kegs, 7½c; in pails, 7½@8c. Beeswax—demand fair, supply small. Price, 23@28c.
A. V. BISHOP, 142 W. Water St.

SAN FRANCISCO, June 11.—Demand quiet as old crop is nearly exhausted and new crop not in yet. We quote: Extracted, 5½@6 cts. Comb, 1-lbs., 10@11c.; 2-lbs., 6@8c. Beeswax—24@25c.
SCHACHT, LEMCKE & STEINER,
16 Drumm Street.

NEW YORK, June 11—Demand is light, and supply large, except buckwheat comb. We quote: Fancy white comb, 12@14c; buckwheat, 9@11c. Extracted—Clover and basswood in good demand at 6½@7c; buckwheat in demand at 5@6c. Beeswax in fair demand at 26@28c.
F. I. SAGE & SON, 183 Reade St.

CHICAGO, June 11.—Selling slowly, trade being in strawberries and other small fruit. No fine comb honey on the market—it would bring 15@16c. Extracted, 6, 7 and 8c., according to quality and kind. Beeswax, 27c.
R. A. BURNETT, 161 S. Water St.

BOSTON, June 11.—Demand is light. White 1-lbs., 13@15c. No 2-lbs. on hand. No Beeswax on hand. Extracted, 7@8c. Demand is light for all.
BLAKE & RIPLEY, 57 Chatham St.

MINNEAPOLIS, MINN., June 11.—Market is dull in general, though some is being worked off, but mostly at cut prices. Fancy white, 15@17c., 1-lb. sections; dark, 8@10c. Extracted white, 7@8c.; dark, 5@6c.
STEWART & ELLIOTT.

ALBANY, N. Y., June 11.—Demand is very little, and market quiet. We are selling some Florida new orange-blossom extracted honey to good advantage. Beeswax—28@30c.
H. R. WRIGHT, 326-328 Broadway.

NEW YORK, June 11.— Demand moderate, and supply reduced, with no more glassed 1-℔ nor paper cartons, 1-℔. We quote: Comb, 1-℔, 14@15c. Extracted—Basswood, 7¼@7½c; buckwheat, 5½@6¼; Mangrove, 68@75c per gal. Good demand for dark extracted honey. Beeswax, in fair supply, with small demand, at 26@27c.
F. G. STROHMEYER & CO., 120 Pearl St.

* * *

Winter Problem in Bee-Keeping; by G. R. Pierce, of Iowa, who has had 25 years' experience in bee-keeping, and for the past 5 years has devoted all his time and energies to the pursuit. Price, 50 cents. For sale at this office.

* * *

We Club the AMERICAN BEE JOURNAL and the monthly "Illustrated Home Journal" one year for $1.35; or both of these Journals and the semi-monthly "Gleanings in Bee-Culture," for one year, for $2.10.

* * *

The Honey-Bee; giving Its Natural History, Anatomy and Physiology. By T. W. Cowan, editor of the *British Bee Journal*, 72 figures, and 136 illustrations. $1.00. For sale at this office.

* * *

The Amateur Bee-Keeper, by J. W. Rouse, is a book of 52 pages, intended, as its name indicates, for beginners. Price, 25 cents. For sale at this office.

* * *

The Busy Bees, and How to Manage Them, by W. S. Pouder. Price 10 cents. For sale at this office.

THE AMERICAN BEE JOURNAL
CIRCULATES
ALL OVER THE WORLD
PUBLISHED BY
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CHICAGO, ILL.

ONE DOLLAR PER YEAR.

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THOMAS G. NEWMAN,
GEORGE W. YORK, } EDITORS.

Vol. XXIX. June 23, 1892. No. 26.

Volume XXIX of the AMERICAN BEE JOURNAL is completed with this number. Another milestone in the "Old Reliable's" journey onward is reached; the twenty-ninth book of its progressive record is written—it is now historical, like its predecessors, and will increase in value as Time, in his unceasing "tramp, tramp," keeps step with the coming and the going of the years. Over 30 years ago the BEE JOURNAL was born, and, like a dear "old-maid sister," it has grown sweeter and better with each added year of its meritorious existence. Let us hope that there may be, on the part of its supporters, as well as its editors and publishers, renewed efforts to make the succeeding volume one that may reflect credit upon not only those interested in it and the pursuit, but bring to the great industry which it represents, both honor and respect throughout the entire world. With united and harmonious endeavor and action, such may be our mutual reward.

The World's Fair Women, who are members of the "Committee on Bees and Bee-Culture," are not known as bee-keepers, and thus it seems rather strange that when there are many capable and practical women apiarists to be found, not one of them was selected upon that Bee Committee. Mrs. L. Harrison, who is perhaps the most prominent woman bee-keeper and apiarian writer in America, wrote to Mrs. Palmer, the President of the Lady Managers, and received the following reply, which appeared recently in the *Orange Judd Farmer:*

> The Board of Lady Managers is composed of two members and two alternates from each State, recommended by the Commissioners from those States, and appointed by President Palmer. The women appointed in every case were endorsed by the Governors and representatives of their States, and are women whose abilities especially fitted them to hold such a position of responsibility.
>
> After the Board was organized, committees were appointed to represent the various departments of the classification, and each member of the Board was requested to name her preference in order that each might secure, if possible, the work most congenial to her. I regret that none of our members are practical bee-keepers, but since the committee must necessarily be composed of members of the Board, I endeavored to make the wisest selections possible, and I assure you that the ten members of the committee on bee-keeping are very enthusiastic over this department. We are very anxious to secure the co-operation of women who are successful and practical workers in this line, and will be glad to receive any suggestions.
>
> Please write to Mrs. Charles H. Olmstead, Savannah, Georgia, in regard to the matter.
>
> BERTHA M. H. PALMER.

The Complete Index to the subjects, correspondents and illustrations in Volume XXIX may be found in this issue. We point with pardonable pride to the index to each volume of the AMERICAN BEE JOURNAL, as we know that, to those who preserve the numbers as they come from week to week, a copious index is invaluable

We Wish to Thank those who conduct apiarian departments in various agricultural periodicals, for their kindly references to the AMERICAN BEE JOURNAL and its past and present management. The following are a few of the many notices so generously given us the past week or two:

It is with great regret that we learn that our esteemed friend, Mr. Newman, the veteran editor of the AMERICAN BEE JOURNAL has been compelled, on account of continued ill-health, to relinquish his business, disposing of it to George W. York & Co. We regret the occasion of this step, and trust that freedom from the care and responsibility of such an extensive business may permit him to take needed rest and recreation, and thus enable him to regain renewed health and vigor. Mr. Newman has been connected wtth the AMERICAN BEE JOURNAL as editor and publisher for nearly twenty years, and undoubtedly a rest is much needed. The readers of that standard and reliable bee-paper would more sadly deplore the change were it not that Mr. Newman expects "to continue his interest in the pursuit, and in an editorial capacity to give advice and counsel." He will be relieved from its immediate care and financial responsibility.

Mr. York has been assistant editor for sometime, and without doubt the same generous and fraternal spirit, and devotion to the interests of bee-culture will characterize its pages that have heretofore distinguished it.

We extend our kindest greeting and best wishes to the new proprietors.—*Wisconsin Farmer.*

The AMERICAN BEE JOURNAL comes to us of June 2, 1892, under new ownership. For nearly twenty years this old reliable bee-paper has been owned, edited and published by Thomas G. Newman, of whom every one engaged in bee-culture has knowledge. His retirement from the AMERICAN BEE JOURNAL was owing to failing health. George W. York, the new man at the helm, is a gentleman well versed in the work entered upon. He has been, as Mr. Newman says, "Our valued assistant for the past eight years, is fully competent to so manage the BEE JOURNAL in the future that it will lose none of its reputation for punctuality and general typographical excellence. In fact, it could not have been committed to more competent and worthy hands. Let all give a cordial welcome, and a generous support."—*American Homestead.*

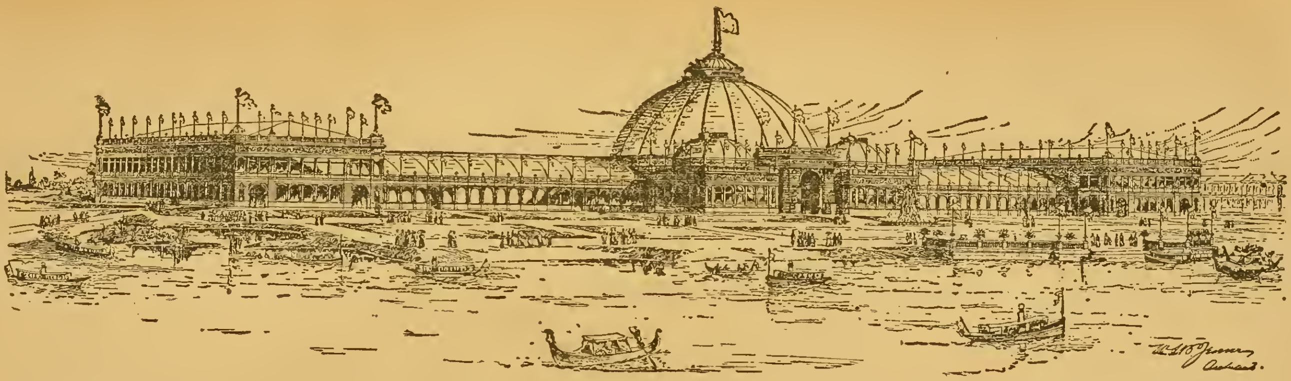
Thomas G. Newman, editor of the AMERICAN BEE JOURNAL for many years, has sold the JOURNAL to George W. York & Co., owing to continued ill-health. Mr. Newman promises to continue to give advice and counsel on apiarian matters in the JOURNAL, but will be released from more onerous duties. The comrades with whom he has so long fought the battles of the busy bee, and crushed the Wiley lie, will regret to hear of his retirement, and many good wishes from personal friends and JOURNAL readers will follow him.—*Michigan Farmer.*

Bee-Kissed Flowers and flower-kissed bees are so closely associated, that we have thought it would be very appropriate in this number—the last one of the present volume, and also the last for this "sweet month of flowers"—June—to present to our readers not only a picture of the beautiful Horticultural Building of the World's Fair, but also to give an extended description of the wonderful exhibition to be seen in that Department of the great Exposition.

All bee-keepers, as well as everybody else, are always interested in flowers and fruits, and will doubtless be much pleased to learn in advance something of the magnificent display which horticulturists and florticulturists propose making here in Chicago next year.

The horticultural display will be bewildering in extent, and marvelous in beauty. The exhibit will possess great scientific and educational value, but to the ordinary visitor its ornamental features will be the most striking. Indeed, it will play an important part in the adornment of the great Exposition. While in almost every part of the Exposition grounds may be seen gratifying evidences of the very efficient work of the Horticultural Department, the central point of interest will naturally be in the exhibit in the Horticultural building, which is illustrated and fully described on the opposite page.

THE WORLD'S FAIR HORTICULTURAL BUILDING.



Immediately south of the entrance to Jackson Park from the Midway Plaisance, and facing east on the lagoon, is the Horticultural Building. In front is a flower terrace for outside exhibits, including tanks for Nymphæa and the Victoria Regia. The front of the terrace, with its low parapet between large vases, borders the water, and at its center forms a boat landing.

The building is 1,000 feet long, with an extreme width of 250 feet. The plan is a central pavilion with two end pavilions, each connected with the central one by front and rear curtains, forming two interior courts, each 88 by 270 feet. These courts are beautifully decorated in color, and planted with ornamental shrubs and flowers. The center of the pavilion is roofed by a crystal dome 187 feet in diameter, and 113 feet high, under which are exhibited the tallest palms, bamboos, and tree ferns that can be procured. There are galleries in each of the pavilions. The galleries of the end pavilions are designed for cafes, the situation and the surroundings being particularly adapted to recreation and refreshment. These cafes are surrounded by an arcade on three sides, from which charming views of the grounds can be had.

In this building are exhibited all the varieties of flowers, plants, vines, seeds, horticultural implements, etc. Those exhibits requiring sunshine and light are shown in the rear curtains, where the roof is entirely of glass and not too far removed from the plants. The front curtains and space under the galleries are designed for exhibits that require only the ordinary amount of light. Provision is made to heat such parts as require it.

The exterior of the building is in staff, tinted in a soft warm buff, color being reserved for the interior and the courts. The cost of this building was about $300,000. Mr. W. L. B. Jenny, of Chicago, is the architect. (See next page.)

In the south pavilion of the building will be installed the viticultural exhibit. An idea of how complete this part of the exhibit will be, can be gained from the fact that applications for space have already been received from 33 foreign countries. From abroad the exhibits of France, Germany, Spain and Italy will be especially notable. California will make a splendid display, all the great firms being exhibitors, and having applied for much more space than can possibly be allowed them.

In the rear curtains of the building will be shown the fruit exhibit, which will include all varieties grown in any part of the world. As far as it is possible to do so, probably in a great majority of cases, fine specimens of the natural fruit will be shown. Otherwise wax models, so perfect in appearance as to be indistinguishable from the real fruit, will be substituted. For this exhibit about 44,000 square feet, or more than an entire acre of space, is reserved.

A very complete and splendid exhibit of citrons and other fruits will be sent from California, Florida, Mexico and South American countries. By means of refrigerators, ripe fruit can be sent long distances without injury, and after reaching the Fair, cold-storage facilities will be available to keep it in perfect condition.

The exhibit in the important line of floricuture will be exceptionally extensive, and the preparation of it is far advanced. Unless this were the case, the exhibit could not well be a success, for time is required for the plants to overcome the check received in being transplanted. More than 500,000 transplanted shrubs and plants, of many species, are now growing in the Exposition grounds, and the number is rapidly increasing.

The Department sent out circulars to prominent horticulturists and horticultural societies in all parts of the world, requesting donations of plants, and agreeing to permit the name and address of the donors to appear in connection with such specimens as they might send. The result is that thousands of plants—excellent specimens, too—have been forwarded. Among them are more than 50,000 rare rose plants, which have been donated by firms all the way from California to Hungary.

The floricultural exhibit will not be concentrated in one place. In the front curtains of the building will appear the greenhouse and hothouse plants—a very large variety, and many rare and beautiful specimens. There, too, will be the finest display of orchids ever seen in this country, if not in the world. One firm alone will spend $40,000 on its orchid exhibit. At the opening of the Fair, Chief Samuels says, there will be a display of 2,000 different varieties of orchids, embracing 15,000 specimens.

Beneath the great dome will be the largest tropical plants obtainable, including Japanese and Chinese bamboos 75 to 80 feet high, palms 30 to 40 feet high, and tree ferns 15 feet or more in height. There will also be a miniature mountain covered with tropical plants, and in a cave within will be tried the experiments of growing plants by electric light, and of growing them by the aid of electric currents, passed through the soil, both of which, it is claimed, have been accomplished with remarkable results.

The two courts of the Horticultural building will be filled with orange groves from California and Florida, respectively. In each there will be not less than 160 trees, each bearing about 200 bright, ripe oranges. Thus an interesting comparison may be made between the oranges of the two States as to size and flavor, etc. The courts will also contain growing specimens of lemons, limes, bananas, etc. California would like to make a much larger display than will be possible, and applied for about fifty times as much space as could be assigned. It will occupy an acre on Midway Plaisance with a citrus exhibit. On the Plaisance, too, five acres will be devoted to nursery exhibit, and Wisconsin will show there a cranberry marsh. Six acres in front of the Horticultural building will be devoted to the floricultural exhibit, as will also space about many of the larger buildings.

The "wooded island," or as more properly named, perhaps, the flowery island, will be one of the most beautiful and attractive spots at the Exposition. It embraces between 15 and 16 acres, and has been turned over almost entirely to the Horticultural Department for its exhibits. There, literally speaking, will be acres and acres of flowers of brightest and most varied hues and pleasing perfume. Little groves of trees, clumps of shrubbery, and sinuous walks will relieve the gorgeous monotony of this floral display.

On the north end of the island, Japan will build its strange, antique temple, and surround it with the choicest plants and flowers of the island realm of the Mikado. At various turns of the winding walks which thread this delightful domain of the flowers, the visitor will encounter artistic little structures of the summerhouse description, within which one may seat himself and enjoy rest and beauty and perfume. Many of these retreats—16 or 18 in number—will have thatched roofs, and be covered with growing vines, and otherwise ornamented in keeping with their beautiful surroundings.

In the north pavilion of the Horticultural building will be a very extensive display of vegetables, canned goods, horticultural appliances, etc. In the second story of each pavilion will be a restaurant capable of seating about 200, and profusely adorned with ferns, flowers, and exotic plants. Outside will be a number of greenhouses, where visitors may see an exceptionally complete collection of tropical vegetation. There will also be large auxiliary greenhouses, not open to the general public, where plants will be brought to perfect exhibit condition, and where plants will be cared for after their beauty season has passed.

It may be rightly inferred that the Horticultural exhibit at the Exposition will be the most complete and extensive ever made or attempted. It is certain to attract a great deal of attention, and prove to be of great scientific and educational interest. It will have important features not specified above, as, for example, a very complete collection of insects, both the injurious and the beneficial ones, whose operations affect the fruits and other products of the horticulturist. It is the intention to have in one place an exhibit of all of the species of plants mentioned in the Bible, and in others collections of almost equal historical interest.

Both Chief Samuels, who has general charge of the Horticultural Department, and Chief Thorp, who looks after the floricultural division of the exhibit, have proved themselves to be the right men for their respective duties, and it is already assured that the display which, with the active generous aid of horticulturists the world over, they will furnish, will be long and pleasantly remembered by every one who visits the World's Fair.

◆

Red Raspberry for Honey.—Red raspberries pay well both in nectar for the bees and in fruit. The drooping blossoms protect the honey from moisture, and the bees can work upon them when the weather is so wet that they can obtain nothing from the upright blossoms of the clover. They furnish a succession of flowers during more than three weeks, and yield a supply almost as lasting as the white clover. In favorable seasons the plants supply the table with delicious berries which are more easily gathered than strawberries during as long a time as the plants are in bloom. Where is the farm that cannot afford a few rods of ground on which to raise this luxury?—*Exchange.*

◆

Don't Fail to read all of page 821.

Pink-White Glory of Clover.

A pink-white glory of clover,
Linking with summer's light;
A patch-work gay, all nectar,
Makes hills and valleys bright.

A pink-white glory of clover,
Comes in the rose-set June;
When the sky above is bluest,
The world with joy a-tune.

A pink-white glory of clover,
Out-lasting summer flowers;
The roses, blooming and fading,
To autumn's chill, dark hours.

A pink-white glory of clover,
Going only with the leaves;
With the fall of the maples' crimson,
The binding of the sheaves.

—Florence Carr.

Queries and Replies.

Bees and Grafting-Wax on Trees.

Query 824.—What can be done to prevent bees from taking grafting-wax off from trees where grafting has been done? My bees took off the wax and destroyed several cions last Spring.—Michigan.

Tie cloth over it.—C. C. Miller.

Wrap rags around it.—M. Mahin.

Cover it with cloth.—H. D. Cutting.

Wind rags around the wax.—James A. Green.

Tie cloth over the wax.—G. M. Doolittle.

Wrap them with rags.—J. M. Hambaugh.

Tie a cloth over the wax.—Mrs. J. N. Heater.

Try rubbing a little cerasin on the grafting-wax.—C. H. Dibbern.

Wind the wax with cloth. I think that would protect it.—A. J. Cook.

Make the grafting-wax harder; or else put muzzles on the bees.—A. B. Mason.

Look up a recipe for making grafting-wax that requires less beeswax.—P. H. Elwood.

I give it up. Tell me. May be the wax could be scented and flavored with something that would disgust the "little varmints."—James Heddon.

I would suggest wrapping a cloth over the waxed part of the graft.—J. P. H. Brown.

Covering the wax with a piece of cotton-cloth would prevent it, I think.—R. L. Taylor.

Press on with the hands some strong paper, to cover the wax; the paper will stick to the wax.—E. France.

Nothing that I know of. They probably find a scarcity of propolis, and take it as a substitute.—J. E. Pond.

Why not cover the grafting-wax with strips of cloth, or other material, to keep off the bees?—G. L. Tinker.

I really do not know. I have never heard of a similar case. Was it not because the bees had nothing else to do?—Eugene Secor.

Wrap thin muslin around the stock where the wax is. If your grafting-wax is of the proper proportions, I do not think it will get soft enough for the bees to handle.—Mrs. L. Harrison.

What can be done to keep the rabbits from gnawing young trees? Why, protect them. So protect the wax by tying rags or something else around it. You know a woman would say "rags," every time.—Mrs. Jennie Atchley.

I don't know. I do some grafting every year or so, and I have never been troubled by bees. But if my bees were to carry away the wax from grafted stocks, I would bandage them with tissue paper or thin rags, to exclude the bees from the wax.—G. W. Demaree.

Protect the grafted trees by wrapping cloth or stout paper over the grafting-wax.—Editors.

◆

A Year's Numbers of the American Bee Journal contain over 1,650 pages—what a wonderful amount of bee-literature for only $1.00! Could you afford to do without it at that price—2 *cents per week?* Send us the names and addresses of your bee-keeping friends, who do not receive the Bee Journal, and we will mail them sample copies. We want every bee-keeper in the land to see it, and know of its value as an "assistant" in the apiary.

Topics of Interest.

"Standard for Italian Bees."

G. M. DOOLITTLE.

Under the above heading, on page 255, Mr. Thos. Johnson seems to think that I made "a weak statement" in saying at the Albany Convention that I "was satisfied that the Italian bee was a hybrid;" and as proof to show why he thinks that statement weak, he cites to us thoroughbred Hereford and Shorthorn cattle.

I may have erred in saying "hybrid" instead of thoroughbred, yet I am not entirely sure of this. If hybrid means only the first cross between fixed races, when applied to bees, then I was wrong; but if it means the mixing and inter-mixing of races, until we have a conglomeration of different varieties, which have been bred in one direction so long that they sport but little, or what is termed by some "thoroughbred," then I was right.

Most of those who write on apiculture, use the term "hybrid" in the latter sense, if I "read between the lines" aright, and this was the sense in which I used the term "hybrid," which Mr. Johnson takes exception to. I was not fighting the term "thoroughbred," but I *was* standing against the few who claim that the Italian bee is a fixed race, or as the term goes, "a *pure* bee."

With all the testimony which we have had that there are black bees in Italy, and with all the sporting and inconstancy of color which we have seen while breeding these bees in this country, it seems strange to me that there are some who will persist in calling these bees "pure," or belonging to a "fixed race."

Capt. Balstein told us years ago that "no Chinese walls of snow-clad Alps" had kept the different races of bees from intermingling in the sunny clime of Italy; and nearly all who have since visited that country, have given us a similar report.

Mr. Johnson is right, where he says, "The way to establish uniformity in Italians would be in their color," for we have no other criterion to go by.

But what shall that uniformity of color be? The Roots, of Ohio, claim that the dark, leather-colored bees (so nearly black that it is hard work to distinguish them from our native bees, only as they are filled with honey and placed on a window), which some of their imported Italian queens produce, are just as much Italian, and just as good honey-gatherers as are those imported queens which are a nice yellow color, and produce bees of the same consistency.

Others, like Messrs. Timpe, Hearn, Trego, etc., claim that the standard should be bees whose abdomens, not only of the queens, but of the workers, are nearly or quite an entire yellow; for these bees, it is claimed, have all the good qualities which go toward making *Apis Americana*, with the quality of color thrown in.

I see Mr. Robbins is trying to make the standard for Illinois "three yellow bands," claiming that bees showing these are the best and most prolific of any in the known world. Will Mr. Johnson swing his State of Iowa into line? and if so, which line will he swing it into—that of the Roots', the Timpe's, or the Robbins'?

It looks to me very much as if this was a "hybrid question" through and through, when we come to decide on a standard for color, and I agree that COLOR can and must be the only standard which can be fixed upon. In the Good Book we find (Genesis 30, 27-43) how one became rich out of a diversity of color in the flocks and herds which he cared for, and we find this color bearing, almost as important to-day as it was then; but instead of our desiring to increase those which are "ring-straked, speckled and spotted," we are desirous of producing something having a uniformity of color, for by this means some may reach a prominence above that of their more careless and slipshod neighbors.

Chickens are bred "to the feather," yet none of these fancy fowls can claim that they were the original race. No, no. All they can claim is that through a long series of breeding they are what they are. And this is what I clam for the Italian bee, and I cannot, for the life of me, see why this should make it any the less valuable, any more than the breeding "to the feather" of poultry should make them less valuable.

All know that this breeding of poultry makes the poultry *more* valuable, and yet we have those among our number who would claim that all the painstaking of our most enterprising breeders of the Italian bee should count for naught, yea, worse than naught, for say they, this can only be arrived at through a series of in-and-in breeding, and this begets weakness, unprolificness and laziness.

I have often wondered why such as this should be thrown in the progressive queen-breeder's face, while the same men will sound abroad the praises of our progressive cattle, sheep, swine, and poultry breeders. Do not these men know that it would be *much easier* for a queen-breeder to send out queens whose progeny would run from the dark Italians of the Roots, to the five-banded bees of some of our most progressive breeders? And that such bees as these would need no guarantee of any kind, and could be easily reared even by the novice?

Why not go back to the herds and flocks of our forefathers, and claim that the old razor-backed hog from the woods was hardier and better than our round, fat, sleek Berkshires and Suffolks? This would be just as consistent as is much of the talk about the black bees, and those imported direct from Italy, being superior to those from our best breeders; for, say these talkers, "as beauty increases, superior quality decreases."

From the foregoing I think Mr. Johnson will see that when he comes to try to establish a uniformity of color, and keep a registry of queens bred to a certain standard, he will have as big an "elephant on his hands" as have those who have been trying to establish a uniform standard for sections.

Borodino, N. Y.

Basswood Trees, Italians and Dandelions.

J. C. LILLIBRIDGE.

I wish to thank the BEE JOURNAL and the friends for their kind answers to my questions about basswood trees. I have since found out that they do blossom when quite young, right here at home, when in a cultivated field, at least.

Mr. Judkins, on page 615, would seem to intimate that we have very little basswood, but I think if at the time he was here he had followed some of the small streams up from one to five miles from the river, he would have found among the timber in the valleys quite a sprinkling of basswood trees. But it is fast disappearing now, as well as our hemlock. Much of it has been used for lumber, and three "heading" factories have been started in this vicinity to use up that not good for lumber. Now there is talk of starting a wood-pulp factory, to use up the balance.

That was why I was interested in younger trees. If they will bear so quickly as the second growth, together with our thousands of acres of wild raspberries and white clover on waste lands, with plenty of aspen, willow, elm, maple, dandelion and fruit blossom to build up on, and lots of golden-rod, asters, and other wild flowers, it will make a honey locality hard to beat in the East.

ITALIAN BEES.

May there not be something in the theory of Mr. J. M. Pratt, on page 638, that the brood-combs of black bees produce inferior Italian bees? Perhaps this letter may draw out some one else.

Our bees are doing well at present, when it does not rain, which is most of the time.

DANDELION AS A HONEY-PLANT.

I wonder if dandelions do as well everywhere as they do here. They have been in bloom now since April 25, and the bees almost desert the fruit-bloom for them during the four or five hours they last each day.

I am keeping a record of what my bees work on each day, and would like to compare notes with some one who is doing the same, at the end of the season.

Port Allegany, Pa., June 1, 1892.

The Paddock Pure Food Bill.

J. A. NASH.

We are specialists in the production of extracted honey, and have watched with interest, not entirely unmixed with disgust, the action of many newspapers in their oppostion of the Bill bearing the above title.

We find that some of the very worst opposition to this measure comes from the papers that contain the most patent medicine advertisements. The patent medicine men have taken alarm, lest the section relating to adulteration of drugs should make them trouble. This is singular, as a careful reading of the Bill fails to disclose anything at all injurious to these people, who are badly alarmed before they are hurt.

They seem to fear that it will compel them to disclose their formulas; this, however, is far from the intention of the bill, as it expressly provides (see Sec. 6), "That nothing in this Act shall be construed as requiring or compelling proprietors or manufacturers of proprietary medicines to disclose their formulas."

We have it, on the best of authority, however, that "the patent medicine people have the control of a vast advertising patronage, and so have a very strong influence with the press; and the advertising agents who dispense this patronage, have passed the word to jump on the Pure Food Bill, to all the papers, and many of them are doing so, their pens being sharpened by the patent medicine men withholding their patronage until the fate of the Bill is decided."

We quote a portion of the above from an editorial in that most excellent and staunch supporter of the rural inhabitants—the *American Farmer*.

Now, regarding its relation to the production of extracted honey: That extracted honey is being adulterated, there can be no doubt; that it is done by the producer to any extent, is *very* doubtful, indeed. In a somewhat extended acquaintance with the fraternity, we have had no reason to suspect any man or woman in the business of such a contemptable trick; indeed, no one can, in our opinion, adulterate a number one article of extracted honey, and make it pay; but that much of the low grade extracted honey on the market is adulterated, we firmly believe.

We shipped extracted honey in large quantities, years ago, to a honey dealer in Chicago, and got more for it than the retail price on the market. This party put much of it up in glass jars with a piece of comb in the jar, and more glucose, or something else than honey. All the "old timers" know whom I mean, as he was exposed years ago.

Now, to return to the bill: Section 6 provides:—

"First—If any substance or substances has or have been mixed and packed with it (food or drink) so as to reduce or lower, or injuriously affect its quality or strength, so that such product when offered for sale shall be calculated, and shall tend to deceive the purchaser;

"Second—If any inferior substance or substances has or have been substituted wholly or in part for the article so that the product where sold shall tend to deceive the purchaser;

"Fourth—If it be an imitation of and sold under the specific name of another article."

It does seem to us that this is a just Bill and should become a law. Would it not be a wise thing for each and every one of us to "stir up" our Congressmen in regard to this measure?

Of the author of the Bill, Hon. A. S. Paddock, of Nebraska, too much can scarcely be said. He, himself, is a good man, and true to the interests of the farmers, and is, we understand, a most successful farmer himself, and we ought, irrespective of any political feeling, to do our utmost to secure the passage of this Bill. It will at least prove the entering wedge to overthrow the adulteration of other food products than honey.

The Pure Food Bill has passed the Senate, and is on the calendar of the House of Representatives.

Monroe, Iowa.

Bee-Locations in California.

E. H. S.

One thing is becoming a fixed fact, viz.: bee-keeping in the foot-hill section is a luxury. The bloom starts with the first warm wave from the valleys. This is met by the cold air of the mountains, and the mountain climate holds its own until the warmth of the valleys is sufficiently increased to force its way up to the upper ranges of the mountains. In consequence bees, for business, should be located either in the lower foothills, or the higher altitudes; or, better still, started in the low valleys and then moved to the higher mountains, as is practiced in Switzerland.

One fact has convinced me more than any other that the higher altitudes are to be preferred—no bee-tree in the foot-hill section contains sufficient honey to pay for the labor of felling the tree; while all bee-trees at an altitude of 4,000 feet and upwards have the entire cavity of the tree packed solidly with honey.

It is a well known fact that the grasses of the higher altitudes are much richer, and far more nutritious than those of the plains; also that all grasses and crops grow faster and mature in much shorter time, in the cold climates with the short summers than in the long, hot seasons of the lower lands. And may it not be possible that these plants that give the mountain bloom, secrete a greater and sweeter quality of nectar than the flora of the valleys? Is it that, or is it all due to the fact that it requires warm days and cold, dewy nights to cause honey to be secreted? If the latter, the mountains above 3,000 feet can be depended upon to furnish the proper temperature, both day and night, for a period of three months each year, which is in excess of the average length of the bee season in the warmer sections of the State.

In consequence, I am coming to the belief that our hot climate is not the best for the bee-keeper, but that situations which, having the necessary amount of bloom, give the most days in the season, with the proper conditions for the greatest secretion of nectar.

The neglected fields of Plumas, Lassen and Modoc counties, in this State, with their unoccupied bee-pastures of sage and sweet clover, will some day vie with Ventura and San Diego in the yield of honey, just as Nevada to-day holds the palm in the Eastern markets, and is credited with producing the finest honey in all the West; and not only is this honey fine in taste, weight and appearance, but the quality is all that can be reasonably expected, with no failures from year to year to record. Now, as the correspondents are generally kept very busy answering the numerous inquiries that follow every article written, I would like to add that in Lassen county, at Red Clover, and throughout all the valleys in that county, is an unoccupied bee-range that for bloom and all the proper conditions for successful bee-keeping cannot be excelled. This section can be reached by rail to Reno, Nevada, and thence by rail to Amadee, in Lassen county, then by stage to any section.—*Rural Californian.*

Murphys, Calif.

Material for the Apiary Ground, Etc.

S. C. BOOHER.

I would like to ask what would be the best material to keep the weeds and grass down in the apiary. I suppose some will say, "Mow it down, or use a hoe." But what I want, is to have it as smooth and clean as a floor, so that I can see a queen anywhere. Would the ordinary water-lime or cement do, if put on pretty thick?

This has been the worst spring on bees here that we have had since I have kept bees. It rained almost continually the latter part of March, all through April, and most of May, and when it was not raining, it was cloudy and cold. The last two weeks we had a little better weather, and I am in hopes that we may have a fairly good season yet.

I put my bees out of the cellar on April 29, and I believe they would have been better off if I had kept them in two weeks longer. They were in fairly good condition when I moved them out, except 3 weak colonies which were dead.

I put out 18 colonies, and they have dwindled, and I have doubled up until I have but 16 left; but most of these are very strong, and some are beginning to rear drones. I am now trying to prepare them for the basswood bloom, and if we have a reasonable amount of snnshine, I think I can have them booming by that time.

Basswood is the first bloom we can hope to get any surplus from here, and our principal honey harvest comes in the fall from golden-rod and asters, and other wild flowers.

Danbury, Iowa, June 7, 1892.

Italian vs. Black Bees.

S. E. MILLER.

It would seem that the discussion of this subject should have been at an end long ago, but when I see an article like the one by Mr. A. D. Ellingwood, on page 704, it moves me to say something.

Mr. Ellingwood says: "I am greatly amused......and when I come to sum the matter all up, I find that all of the valuable qualities have been conceded to the black bees."

My brother and I commenced with black bees, but are thankful that we now have them all bred out.

The one, and only, good quality that I can concede to the black bees is that they do cap their honey whiter. This, however, is at the cost of more wax, and not, as some seem to think, because they make whiter wax; and this, I consider, more than over-balanced by the fashion they have of bobbing off short the section honey-combs whenever there is the least cessation in the flow of nectar; then commencing again and again, rounding off the combs on the lower end, so that when the section is complete, it is full of waves.

Mr. E. says the black bees winter better in New Hampshire! They do not in Missouri. They swarm less. In Missouri they will sometimes swarm when the brood-chamber is not over two-thirds full of bees, brood and honey.

They will work on any flower—clover or anything else that any other race of bees will work on. This I consider the broadest assertion of all. While we had yet a number of black bees, I often took notice while walking through red clover, and found the best marked Italians always more plentiful than the blacks, or even the hybrids. Only last year I was in a red clover field that is within as easy reach of a neighbor's black bees as it is of our Italians, and while the field was roaring with Italians, I could only occasonally see a black bee.

The man who admits that black bees sting less than Italians, must have a tough race of Italians, or an extra-gentle race of blacks. It is not their way at Bluffton, Mo.

If there is one thing that I dispise above all others about the black bees, it is the fashion of "acting like crazy" when a frame is lifted out of the hive. They will all run to the lower corner, "ball" up, then string out like a bunch of grapes, and then, like the Irishmen in the well, the upper one says, "Hold fast below while I spit on my hands above," and away they tumble. This the advocates of black bees could claim as an advantage in the production of extracted honey (only) while shaking and brushing the bees off the combs was resorted to, but since the advent of improved and practical bee-escapes, even this is no longer a merit.

Regarding Mr. E.'s last paragraph, I would say: Why does he not give the black bees the same careful attention that has been given the Italian bees in breeding, and produce a superior strain? The fact is, we have seen the "Large Arkansas Brown Bees," and black bees under various other fancy names advertised in the periodicals devoted to bee-culture, some years ago, but at present we see nothing more about them. Surely, they have been weighed in the scale, and found wanting.

Bluffton, Mo.

Temperature in Wintering Bees.

THOS. JOHNSON.

On page 347, I notice Mr. Dayton's experience on wintering bees, etc. By the description of his cover for the bees to wax down, it was not properly braced, as the dovetailed end is made by different manufacturers. As the cover became warped by the evaporation of the bees, like the Hill device, and as the hives were level, or nearly so, the dampness from the bees gathered on the cover, nearly every drop of water fell among the bees, and caused bad results.

Mr. Dayton says the idea that a healthy colony will keep the inside of the hive warm and dry from their natural warmth, is a mistake. All right; but we must drain the moisture that evaporates differently than he has done, and not let it drip on the bees. In preparing bees for wintering, either on the summer stands, in the cellar, or a bee-cave, the back end of the hive must be raised from 2 to 4 inches higher than the front. This answers a double purpose, in draining the water from the bottom, and also if any gathers on the top cover, it will naturally seek the lowest point of level before it drips to the bottom of the hive.

No two colonies will winter alike in the same repository, because some will be moist on the top cover, and some not; at least such is my experience, and we must prepare for obstacles.

Speaking of the temperature of the repositories for bees, I would refer the reader to Mr. Doolittle's article, on page 788 of the BEE JOURNAL for Dec. 17, 1891. I will venture to say that the temperature of his cellar will not vary 2° from the bottom to the roof, unless there is some stir in the cellar.

For a cheap bee-cave see page 821 and 822 of the BEE JOURNAL for Dec. 24, 1891; there I described one. In this cave the temperature does not vary any that one can notice from the roof to the bottom, although I have not tried it under the bees' wings. About Dec. 15, 1891, it commenced raining, and continued until the water dripped through the earth overhead, and the top of the hives were wet, and water stood about 24 hours on the cave floor (which is an unusual thing in Iowa). I became uneasy, and watched the results, and on March 15 the bees were wintering well, seemingly perfectly contented. The thermometer indicated an average of 42°, and one time it showed 46° above zero, and the bees became uneasy. I opened the cave one night and the mercury went down to 36°; I closed it the next morning, and the next day it was 40°. About Jan. 15 the thermometer registered as low as 38° below zero in the neighborhood, and run it down as low as 38° above zero in the cave; the difference between the out-door and cave temperature being 76°.

I read an article in the BEE JOURNAL about one man's thermometer registering 16° below zero in his bee-house. What would be the result with my bees if I should have opened my cave on Jan. 1, and let the thermometer register 16°, as he said in his article? I think I should now be hunting bees to make a start, or else I would be on the retired list. Every experienced writer will advise keeping the cellar as warm as possible, or from 40° to 45°, which is about 10° above freezing.

Mr. Dayton referred to Mr. Muth, of Cincinnati, Ohio. Is it possible that Mr. Dayton has tried to follow southern Ohio and Kentucky in wintering bees? If so, I would say that I am further south than Mr. D., who wintered his bees in Wisconsin; but the advice applicable to southern Ohio for wintering bees will not answer for central Iowa, but will only do in that latitude and further south. For my guidance in such matters, I follow the directions of such bee-keepers as Dr. Miller, Mr. Doolittle, Mrs. Harrison and G. R. Pierce—people of my latitude, and further north.

I would like to ask Mr. D. why it is that water will gather on the windows and walls while the ceilings of the house are dry; and at the head of a nail frost will accumulate, and not on the ceiling, when the thermometer registers below zero. Furthermore, if any apiarist wishes to experiment in regard to the evaporation of bees, take a strong colony, remove the cover, and replace it with a glass, and watch the results. Try setting them on a level, then place the hive so the back will be about 4 inches higher than the front. You can then see the results as you cannot see them through a clapboard.

Suppose Mr. D. should employ a carpenter to build a house, and he should make the roof so that it would turn the water inside of the house instead of outside, and all over the occupants. Would there not be a commotion somewhere about Mr. D.'s premises? Most assuredly. Well, Mr. D. has done that very thing; and fixed the roof of the hives so that nature did the rest.

Coon Rapids, Iowa.

Some Apicultural Notes.

C. H. DIBBERN.

Never since we commenced bee-keeping, more than 27 years ago, have we had such an unfavorable spring for bees. When they came out of winter quarters they were in a poor condition, and greatly needed bright, sunny days to induce them to build up into normal colonies, but instead we had cold rains, and stormy weather for weeks at a time, when not a bee could wander out in search of new pollen, or even water. Fruit bloom came and went by, while the bees were kept in the hives by cold, rainy weather, and the first of June found many colonies with but pints and quarts of bees. Then to make matters still worse, more bees have died during the spring, than were lost in winter. More than 40 per cent. of the number of colonies we had last fall are now dead.

SUGAR SYRUP A SAFE WINTER FOOD.

We are more than ever convinced that the quality of the food has more to do with wintering bees successfully than any other one thing. Wherever bees gathered great quantities of the so-called honey-dew last year, and it was left for winter stores, there the bees have died in the greatest proportion. The past winter has also shown that sugar syrup, or syrup mixed with good honey, fed in September or early October, is a safe winter food. The past winter has taught us a lesson that we will not soon forget.

PUTTING ON SURPLUS-CASES.

The time has now come when we must begin to look after the surplus honey. Wherever there is a hive, that is becoming crowded on warm days, there is the place to first put on the surplus-cases. It would be more than useless to give more room, where the bees do not half occupy what they already have. The point is to economize all the heat in the brood-chamber until it becomes filled with bees. If cases are only given where and only as fast as actually needed, it gives more time to have our sections filled just right with foundation or comb, so that the honey will be nice when we do get it. All soiled sections and propolized foundation or comb should be carefully cut out, and replaced with new foundation.

SWARM-CATCHERS AND THEIR USE.

After carefully considering all the various devices so far presented, we have come to the conclusion, that for running an out-apiary, that can be visited but one day in four or five, there is nothing that suits us so well as the plan we used so successfully last year. We shall change it somewhat, using but two rows of perforations at the bottom, and wire-cloth for balance of frame. The lower part will be made large enough to cover the front of the hive and one case. There will also be a double row of perforations at the top of the frame, so that some bees will work through the upper part of the swarmer, before the swarm occupies the upper hive. The object gained is this:

When the bees swarm, the two rows of perforations will not afford room for the rush, and many bees will run up the wire-cloth and pass out through that part. When the swarm returns, they will soon clog the lower entrance, and as the queen is in the upper part, and fully one-half the bees will run up the wire-cloth, and unite with the new swarm. Put it down that this is a new idea, original with me, and from past experience I know it will work. We shall try the other plans also.—*Western Plowman.*

Milan, Ills.

Fine Prospects—Closed-End Frames.

ED. CLARK.

Bees are very strong now, but I have had no swarms yet. The poplar did not blossom as profusely this year as it generally does, and consequently there was not as much honey gathered from that source as there usually is. The prospects are fine for a good flow of honey from the sourwood, which, by the way, I think is a good honey-producer. It blooms profusely when only a small bush, and grows almost everywhere.

The closed-end frame in a tight-fitting case does not suit me very well. When I start to put a frame in the hive it goes about like this: Now—push—hold on—wait a minute until those bees get out of the way; but the bees do not get out of the way, and are mashed, and if the apiarist has not a great deal of patience he will leave in disgust. I tried two hives last year with closed-end frames, but about the first thing I learned to do with them was not to like them. The bees in one of the hives died during the winter, and I transferred the other colony a few days ago. It seems to me that the Hoffman frame, made the way Mr. A. I. Root makes it now, would be a great deal better than the closed-end.

Nat, Ala., June 7, 1892.

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

Feed the bees all the odds and ends of honey, and put the rest in good shape for the market.

CONVENTION DIRECTORY.

Time and place of meeting.

1892.
Aug. 17.—Wabash Valley, at Vincennes, Ind.
Frank Vawter, Sec., Vincennes, Ind.

Aug. 27.—Haldimand, at S. Cayuga, Ont.
E. C. Campbell, Sec., Cayuga, Ont.

Sept. 7, 8.—Nebraska, at Lincoln, Nebr.
L. D. Stilson, Sec., York, Nebr.

Oct. 7.—Utah, at Salt Lake City, Utah.
John C. Swaner, Sec., Salt Lake City, Utah.

1893.
Jan. 13, 14.—S.W.Wisconsin, at Boscobel.Wis.
Benj. E. Rice, Sec., Boscobel, Wis.

☞ In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITORS.

North American Bee-Keepers' Association

PRESIDENT—Eugene Secor..Forest City, Iowa.
SECRETARY—W. Z. Hutchinson....Flint, Mich.

National Bee-Keepers' Union.

PRESIDENT—James Heddon ..Dowagiac, Mich.
SEC'Y AND MANAGER—T. G. Newman, Chicago.

Bee and Honey Gossip.

☞ Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Good Honey Weather.

The bees are hard at work here now—the weather is hot and damp.

T. F. BINGHAM.

Abronia, Mich., June 11, 1892.

Bees are Swarming Some.

My health is poor, and I have sold part of my bees to my brother, but I shall look them over occasionally. Although the season is called late, some swarms were reported on June 4, which is earlier than the average.

J. H. ANDRE.

Lockwood, N. Y., June 7, 1892.

Good Clover Crop Expected, Etc.

My first swarm of the season issued on May 7. I have had extra-good luck with my bees in wintering; not a loss in 13 colonies, while every other bee-keeper in this section has lost, on an average, 75 per cent. My bees are pure Italians, and came out strong this spring. They had nothing, to speak of, but honey-dew to winter on. Other bees had the same food, but most of them are either black or hybrid bees. We have had a great deal of wet weather, and how the bee-keepers in Minnesota manage to get enough together to swarm on, is more than I can tell. I opened the hives to make sure that all was right, and found queen-cells capped in two hives, and more started in others. Though there is not a head of white clover in sight here, yet I was afraid to let the bees take a new hive, so I divided them to make sure of enough stores to carry them through to the clover bloom. There is a fine showing for an extra crop of clover this year.

F. E. Burrows.

Delavan, Wis., June 9, 1892.

Prospects are Improving.

Two-thirds of the bees in this county died during the cold spring. I have 20 colonies left out of 30. One man had about 85 colonies, and has only about 30 left; another had 125 colonies, and has only 20 left. My first 2 swarms issued on June 7. Prospects are now better than they were a few weeks ago.

Adolph Ott.

Geneseo, Ills., June 10, 1892.

Another Bee-Feeder.

The following is a plan of a bee-feeder, which I have been using, and like very much; the bees seem to be proud of it. Its length is 12 inches, width 6, and depth 2¼ inches. I place a ¼-inch board filled with ¼-inch auger holes on the top surface; place this on the food, and the bees use it without getting drowned. Make one, and try it. I think you will be pleased with the way it works.

Geo. Sharpless.

London Grove, Pa.

The Weather—Poisonous Honey.

In this part of Tennessee we will not have any surplus honey to amount to anything this year; bees have no more than made a living so far. The season is cold, windy and wet. The bees would have stored some surplus from poplar, but for the cold, windy weather. I see it stated that sourwood honey is a straw color. Pure sourwood honey is as clear as any water, and when placed in new white comb, it does not change the color of the comb one bit. I notice that Prof. Cook and Dr. C. C. Miller do not think that there is any such thing as poisonous honey. I wish they were right, but they are badly mistaken. I know, without one particle of doubt, that there is poisonous honey; it is gathered from ivy. I do not know its botanical name, but it is called "ivy" here; and we have plenty of laurel, but bees never work on it here—honey-bees do not. Bees have stored a surplus from ivy here only 3 years in 14, and I have seen but one good flow from ivy, and that was the year 1882. It blooms when nothing else is in bloom that amounts to anything, and I can tell by that when it has any honey. I do not think that a person could eat enough of the honey to kill him; but I am not certain of that, for I have known of it nearly killing one person. When a person gets sick on it, he turns blind, and generally vomits. It does not make every person sick that eats it, but it makes the flesh tingle and feel queer.

Sam Wilson.

Cosby, Tenn., June 8, 1892.

Pouring Feed into Hive Entrances.

I have practiced and recommended this method for years. I have also tried nearly all kinds of feeders. I am convinced that my method is the most perfect in existence for feeding. A few years ago I fed two barrels of granulated sugar; I did all the feeding at evenings, and was less than a week at the work. For winter feeding I poured in 10 pounds at a time, and on the following morning I found all nice and dry, and the syrup safe in the combs. The plan is a most perfect one for feeding back extracted honey at the close of the season, to get unfinished sections completed. I have frequently commended the plan to parties who seemed to doubt its success, but after a trial they invariably discard cumbersome feeders. Our season is late, but promises to be good yet.

Walter S. Pouder.

Indianapolis, Ind.

Experience in Bee-Keeping.

I began two years ago with one colony of black bees in a Langstroth hive; had no increase of swarms, and no honey the first year. Last spring, however, I bought a colony of fine Italians in an old box, transferred them to two movable-comb hives, introduced an Italian queen to the queenless one, and in the fall of

1891 I had 7 fine colonies, and all Italians but one. I also took about 275 pounds of nice honey in sections from them. On May 29 and June 1 of this season I had swarms, Our spring has been cold and wet; but I fed my bees plenty of syrup made from granulated sugar, and all are doing well. I am quite an enthusiast in a small way, over bees. They are certainly very interesting, as well as useful, and furnish me amusement as well as profit. I find the Italians much less inclined to rob than the blacks. Whenever any robbers are sneaking about, trying to pry into forbidden sweets, nine out of ten of them are black. The weather is warm and pleasant to-day, and my bees appear to be bringing in some honey as well as pollen. White clover is just beginning to blossom. I am a constant reader of the BEE JOURNAL, as well as "Quinby's New Bee-Keeping."

JOHN R. PIERSON.
Sterling, Nebr., June 7, 1892.

Bees are Doing Well.

My time is mostly consumed in the practice of medicine. I have a few bees to look after. I had to feed all of them in the forepart of the spring. White clover is now coming into bloom, and the bees are doing quite well.

J. M. HICKS, M. D.
Indianapolis, Ind., June 14, 1892.

Extracting Commenced.

Bees are busy working on white clover, of which there is an abundance. They are now capping sections of honey, and I commenced extracting to-day.

C. B. JENKS.
Pawtucket, R. I., June 13, 1892.

Excellent White Clover Honey-Flow.

We are having an excellent white clover honey-flow, and if the weather continues as it is now, the flow will be very great.

THOS. JOHNSON.
Coon Rapids, Iowa, June 15, 1892.

The Globe Bee-Veil, which we offer on the third page of this number of the BEE JOURNAL, is just the thing. You can get it for sending us only three new subscribers, with $3.00.

Be Sure to read offer on page 821.

Wavelets of News.

Shipping or Hauling Bees.

One very important point in shipping bees is to load the hives so that the combs will run the long way of the railroad car—parallel with the rails—but crosswise of the wagon, when hauled. The reason for this is that on the railroad the only severe shocks come from the end, while on a wagon the worst bumping is from side to side. The last is easily tested. While in the wagon, hold an ordinary pail by the rail. It can swing freely in one direction only. If held so that it can move only lengthwise of the wagon, it will not swing nearly as much as if it is free to move crosswise. On steep, rough hills, or where it will often happen that both front wheels strike an obstruction at the same time, it might be best to reverse this and have the combs run the long way of the wagon. But, ordinarily, the other way is better. Springs under a wagon for hauling bees are a very good investment.—J. A. GREEN, in *Bee-Keepers' Review*.

The Lessons of Arbor Day.

The influence of Arbor Day in promoting interest in trees and flowers is a happy influence which will not be lost upon multitudes of pupils. Many of them hereafter will trace their pleasure in trees, and it is one of the purest of pleasures, to this early training of their taste and observation. The day affords the teacher a golden opportunity of pointing out the relation between the landscape and literature, and they may wisely discourse upon the reason that in the ancient and most objective literature there is the least allusion to what we call Nature.

Not the least valuable of the lessons of the day is the tenderness of feeling toward trees which it encourages. If the children of to-day could once more people the woods and hills with dryads and oreads, they would less ruthlessly mutilate the shrubs and saplings, and look upon a shaved hill-side as on a ravaged village. It is a beautiful holiday in the loveliest season, and we trust its observance will become more and more general.—*Harper's Weekly*.

The Spider probably thinks the bee is wasting time when storing honey.

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